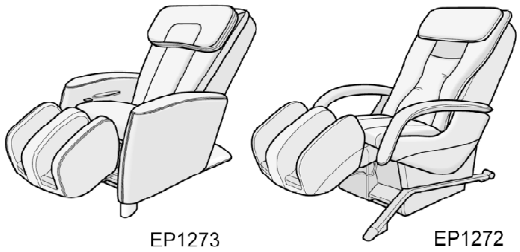
ORDER NO.HPD0508U23C1

Service Manual

MASSAGE LOUNGER

EP1273-U1 / EP1272-U1



SPECIFICATIONS

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Power Supply:	AC120V 60 Hz	
Power Consumption:	220 W	
Upper Body Massage		
Massage Area (Up-Down):	Approx. 27 in. (67.5 cm)	
Massage Area (Left-Right):	Distance between Massage Heads during Operation Approx. 2 – 7 in. (6.0 – 18.0 cm)	
Up-Down Movement Speed:	Approx. 20 – 35 sec. return.	
Massage Speed:	Knead:	Approx. 20 – 30 cycles/min.
	Swedish:	Approx. 30 – 50 cycles/min.
	Compression:	Approx. 20 – 30 cycles/min.
	Hawaiian:	Approx. 30 – 50 cycles/min.
	Soft Shiatsu:	Approx. 120 – 200 cycles/min.
	Tap:	Approx. 300 – 700 cycles/min.
	Full Roll:	Approx. 20 – 35 sec./cycle (Movement range: Approx. 21.1 in. (53.5 cm))
	Regional Roll:	Approx. 7 – 9 sec./cycle (Movement range: Approx. 4.7 in. (12 cm))
Lower Body Massage		
Air Pressure	Strong:	Approx. 24.0 kPa
	Medium:	Approx. 14.5 kPa
	Weak:	Approx. 8.0 kPa
Reclining Angle:	Backrest:	Approx. 120 – 170
	Legrest:	Approx. 0 – 85
Automatic Shut-Off:	Approx. 15 min. for both upper and lower body	

Dimensions:	**For EP1273**	**For EP1272**
When not reclined. (H × W × D)	42.9 x 30.3 x 47.2 in. (109 x 77 x 120 cm)	42.9 × 26.8 × 47.2 in. (109 × 68 × 120
When reclined. (H × W × D)	24.0 x 30.3 x 66.1 in. (61 x 77 x 168 cm)	24.0 × 26.8 × 66.1 in. (61 × 68 × 168 c
Weight of Unit:	Approx. 155lbs (70kg)	Approx. 133 lbs (60 kg)
Dimensions of Box (H × W × D):	30.7 x 32.7 x 52.0 in. (78 x 83 x 132 cm)	30.7 × 30.3 × 47.6 in. (78 × 77 × 121 c
Weight in Box:	Approx. 183lbs (83kg)	Approx. 161 lbs (73 kg)
Maximum User Weight:	Approx. 265lbs (120kg)	Approx. 264 lbs (120 kg)
Minimum Distance from Wall:	15.7 in. (40cm)	15.7 in. (40 cm)

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

1. COMPONENTS IDENTIFICATION

1.1. Massage lounger

1.1.1. EP1273

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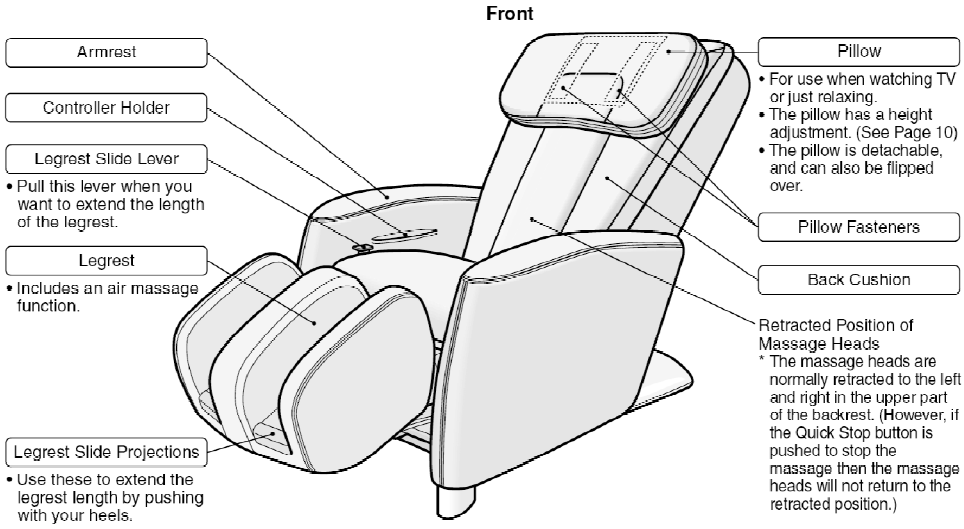
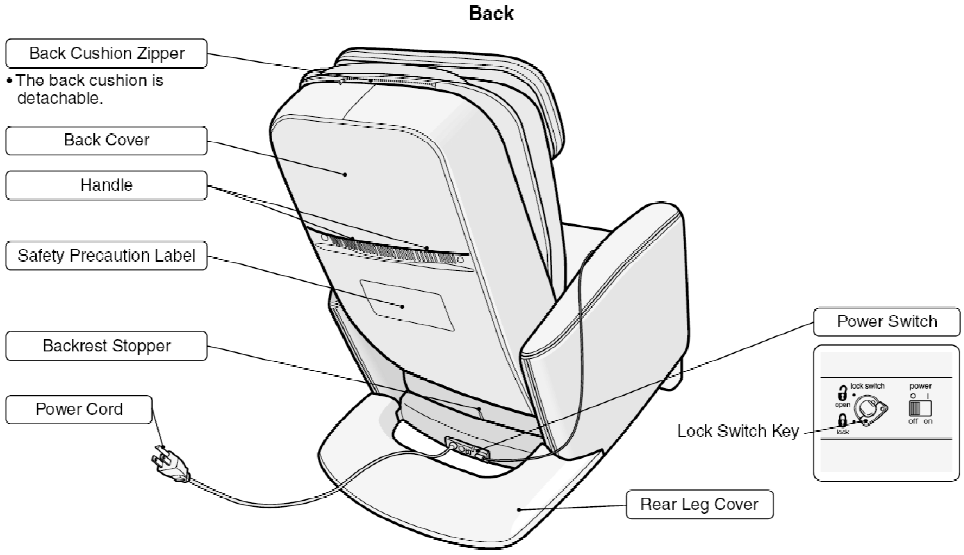

Front
Armrest
Controller Holder
Legrest Slide Lever
• Pull this lever when you want to extend the length of the legrest.
Legrest
• Includes an air massage function.
Legrest Slide Projections
• Use these to extend the legrest length by pushing with your heels.
Pillow
• For use when watching TV or just relaxing.
• The pillow has a height adjustment. (See Page 10)
• The pillow is detachable, and can also be flipped over.
Pillow Fasteners
Back Cushion
Retracted Position of Massage Heads
* The massage heads are normally retracted to the left and right in the upper part of the backrest. (However, if the Quick Stop button is pushed to stop the massage then the massage heads will not return to the retracted position.)



1.1.2. EP1272

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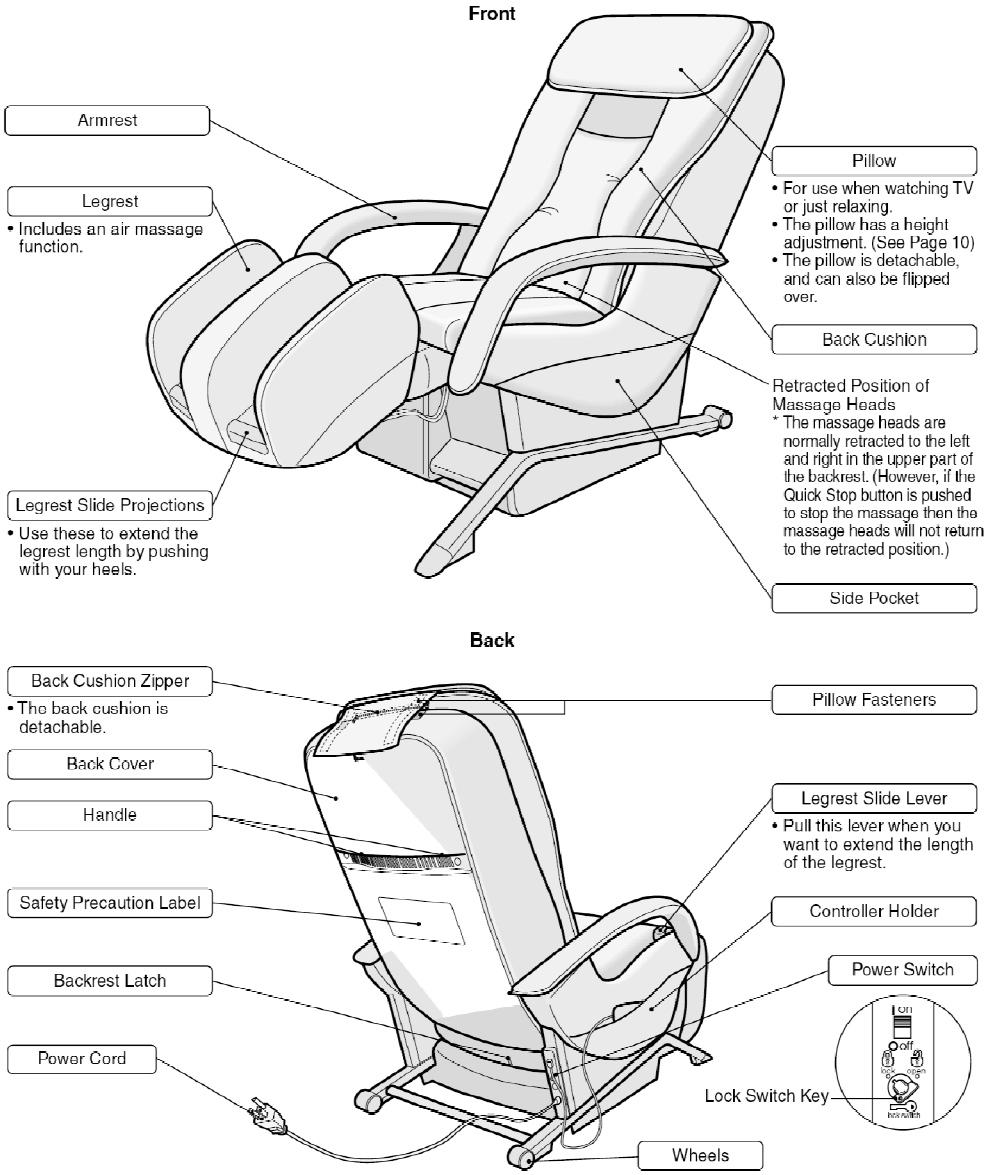
Front
Armrest
Legrest
• Includes an air massage function.
Legrest Slide Projections
• Use these to extend the legrest length by pushing with your heels.
Pillow
• For use when watching TV or just relaxing.
• The pillow has a height adjustment. (See Page 10)
• The pillow is detachable, and can also be flipped over.
Back Cushion
Retracted Position of Massage Heads
* The massage heads are normally retracted to the left and right in the upper part of the backrest. (However, if the Quick Stop button is pushed to stop the massage then the massage heads will not return to the retracted position.)
Side Pocket
Back
Back Cushion Zipper
• The back cushion is detachable.
Back Cover
Handle
Safety Precaution Label
Backrest Latch
Power Cord
Pillow Fasteners
Legrest Slide Lever
• Pull this lever when you want to extend the length of the legrest.
Controller Holder
Power Switch
on
off
Lock Switch Key
Wheels

1.2. Controller

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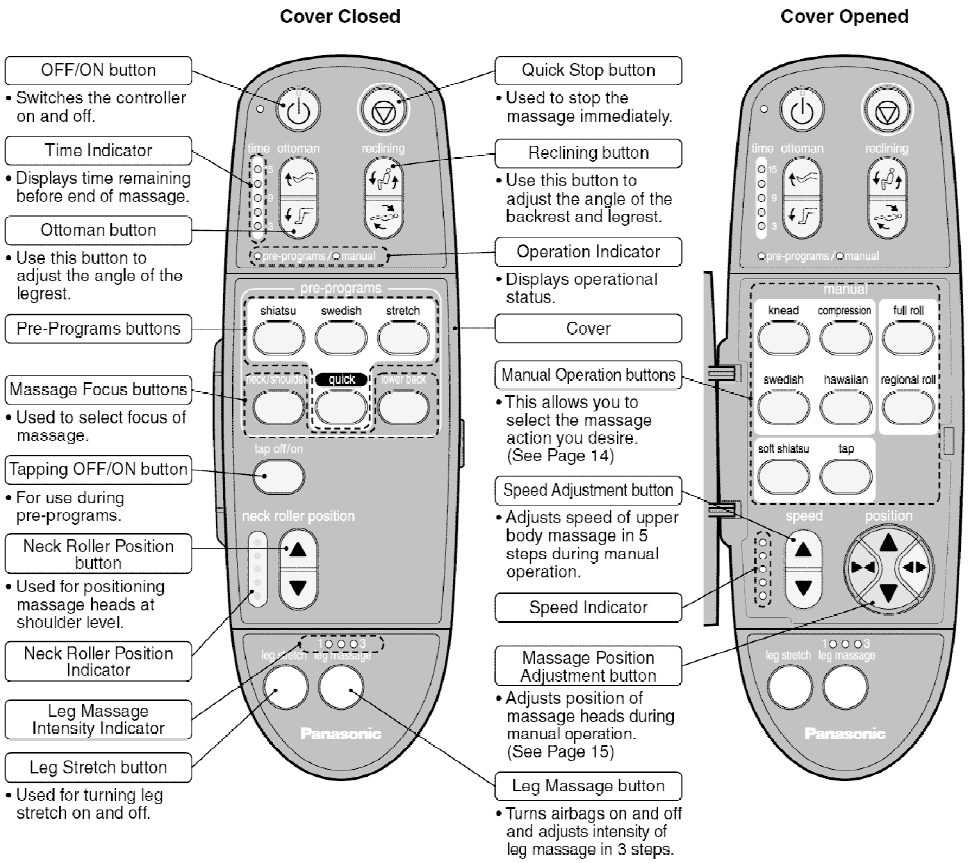

2. KNEED, SWEDISH, CONPRESSION, HAWAIIAN, SOFT SHIATSU, TAPPING, FULL ROLLING, AND REGIONAL ROLLING

Width adjustment
Approx.2-7in.(6.0-18.0cm)

Intensity adjustment
Kneed, Swedish, Conpression, Hawaiian, Soft Shiatsu, Tapping, Full rolling, and Regional rolling (from gentle to strong)

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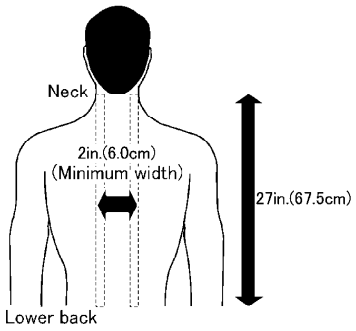
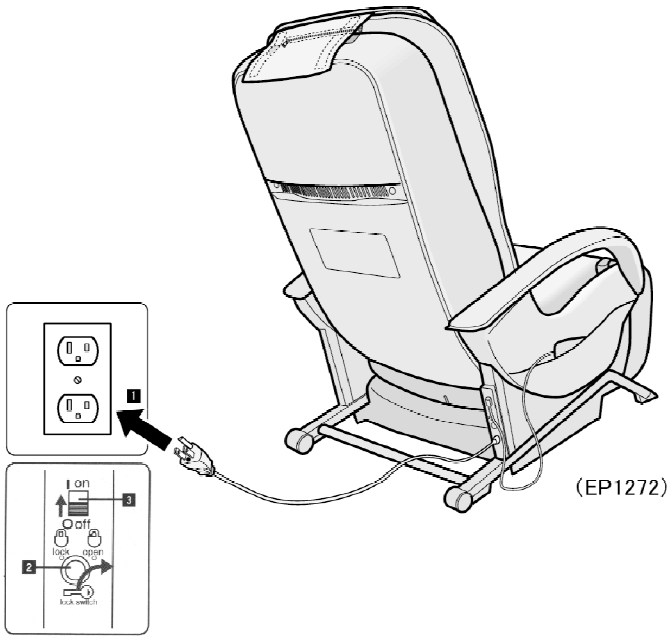


3. TURNING ON THE POWER

3.1. Turning on the power



1. Plug the power plug into the power socket.

2. Turn the lock switch to the open position.

3. Turn on the power switch on the back of the unit.

- When the operating lock switch is pointing toward 'lock', the power switch cannot be moved to the 'on' position.

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After each use.

- **Be sure to turn the power switch to 'off'.**
- **To prevent children from using this unit, lock the power switch by moving the operating lock switch to the 'lock' position.**
- **As a further caution, unplug the power cord from the power socket after each use.**
- **Always keep the key in a safe place.**

Timer
When the on/off button is pushed, a timer begins to prevent overuse. After approximately 15 minutes, time expires and the massage wheel goes into storage position.

4. REQUIRED TOOLS

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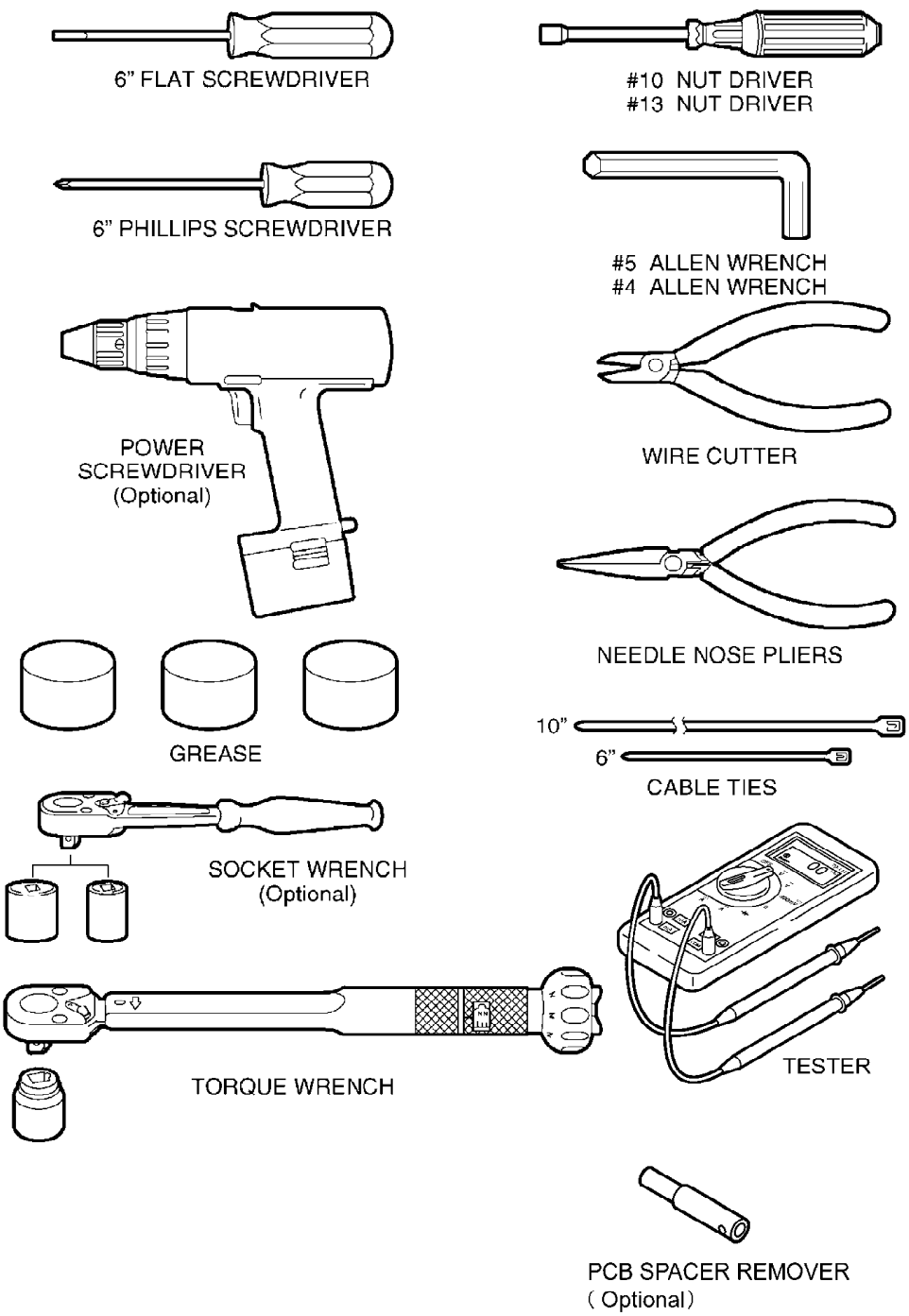

5. ACTUAL WIRING DIAGRAM

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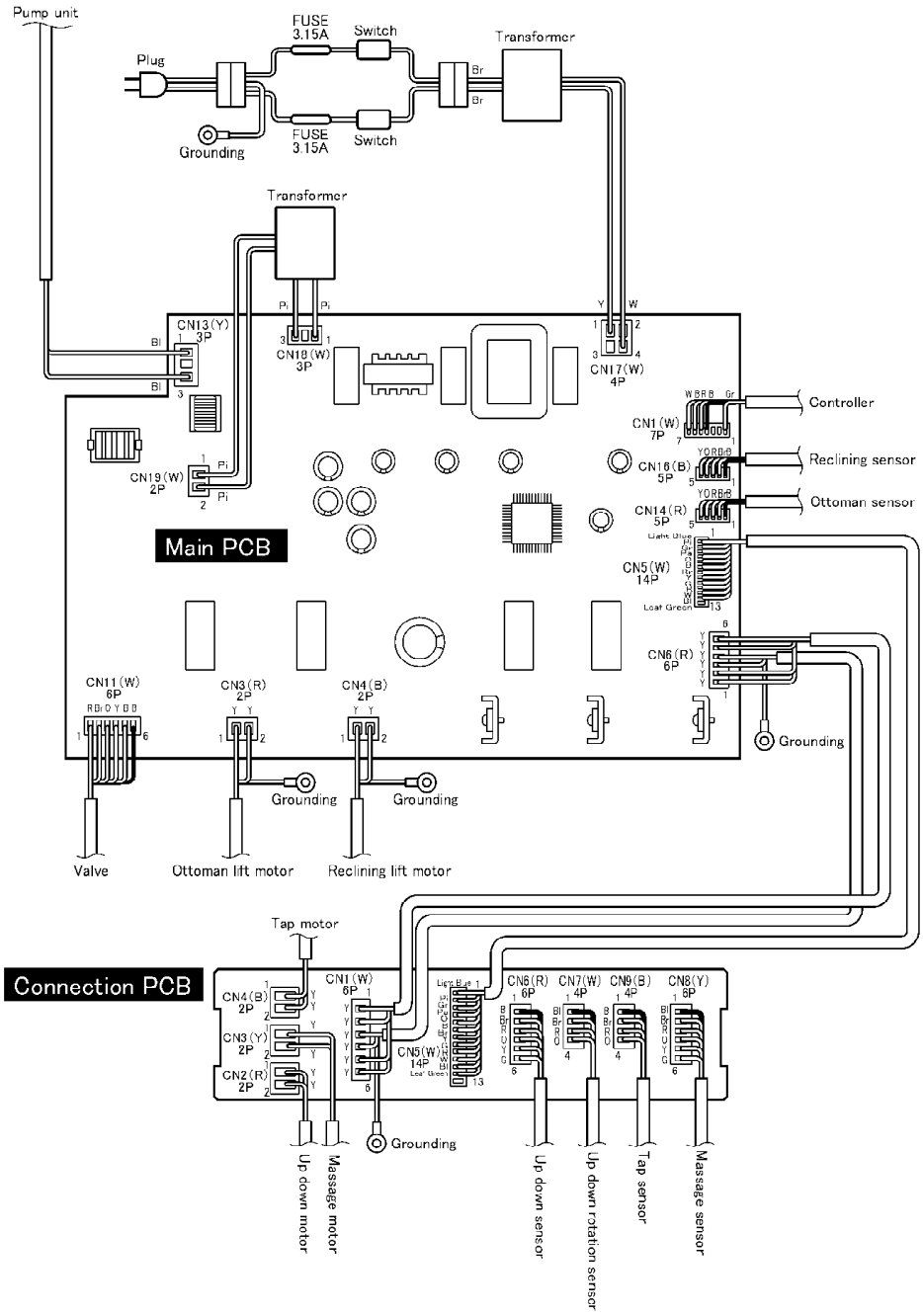

6. DISPLAY METHOD OF MASSAGE BLOCK TOTAL USE TIME

Total use time

While pushing the + and the - speed adjustment bottons simultaneously, turn on the power switch and continue to hold the buttons for approximately 3 seconds. Release after the LED lights up.

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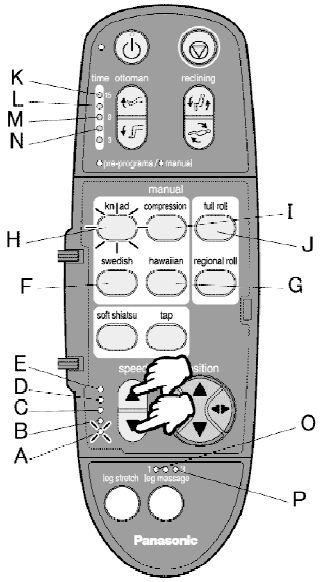

	Time (hour)
LED A	5
LED B	10
LED C	20
LED D	40
LED E	80
LED F	160
LED G	320
LED H	640
LED I	1,280
LED J	2,560

Display method
Display it by utilizing LEDs of Controller.
e.g. In the above case, 640 (LED H) + 5 (LED A) = 645 hours.
It is possible to indicate up to 5,115 hours.
To read the each operation function, push the following buttons after reading the total use time.
You can read the each operation function use time as the same display method of total use time.

Chart for reading each function use time

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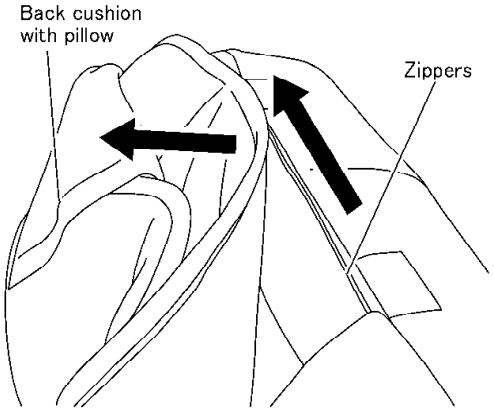
Push the button.	LED lights.	Use time
knead	K	knead + swedish
compression	L	compression + hawaiian
swedish	M	massage motor
regional roll	N	up/down motor
tap	tap	tapping motor
leg massage	leg massage	leg air massage
reclining up	O	reclining lift motor
ottoman up	P	ottoman lift motor

***When replacing the Main Circuit PCB, the use time is counted to zero because the use time is memorized in Main Circuit PCB.**
***When pushing on/off button, the operation returns to normal mode.**

7. DISASSEMBLY AND ASSEMBLY INSTRUCTION (COSMETIC PART AND CHAIR CONSTRUCTION)

7.1. Removing the Head rest, Back rest cushion, Arm rest

1. Unzip the zippers and remove the Back cushion with pillow.



2. Remove four Push-turn rivets on each sides and remove the Side covers.

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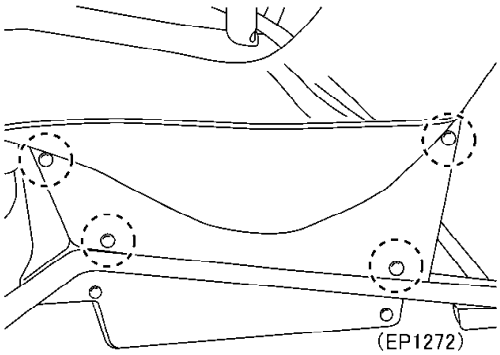
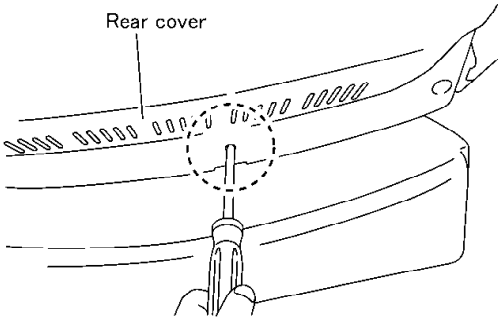
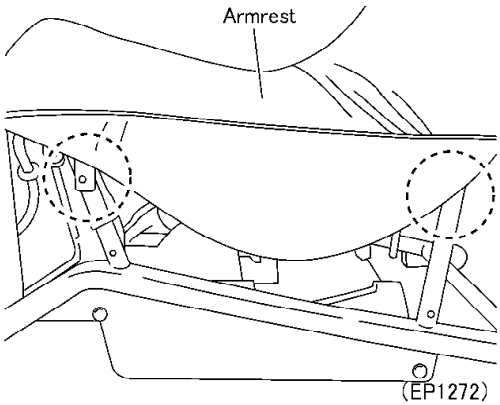


3. **Insert a screwdriver and unlock the lock and fall the Upper main body forward.**
   *** Be careful that the Upper main body may fall forward suddenly.**



4. **Unscrew two screws on each outer sides, and remove the Velcro tape on each inner sides and uncsrew one screw with washers. After unscrewing screws on inner sides, lift the Upper main body to the original position.**



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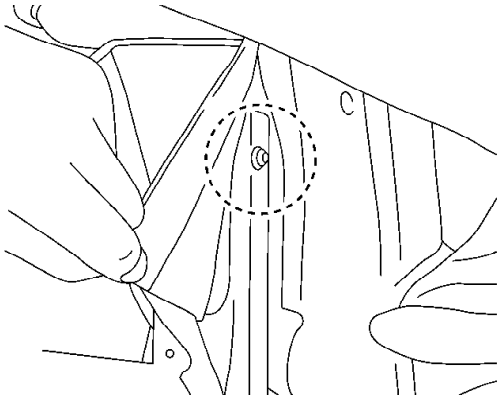
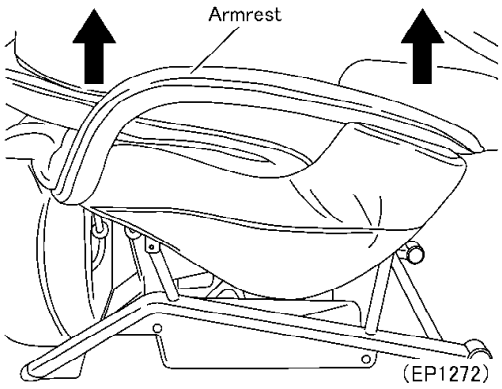
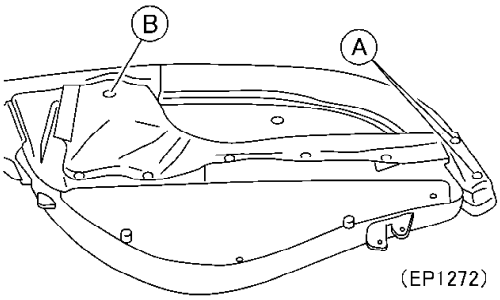


5. Pull out the Armrest.



6. Remove two long screws with washers (A) and one short screw with a washer (B).
And pull out the Armrest top.



7. Unscrew one screw with washers and peel off the Velcro tape.

*** When you zip the Zippers, tuck in the metal of the zippers under the cloth**

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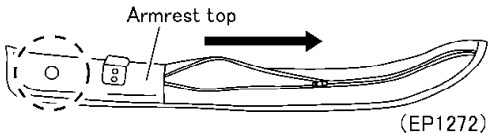
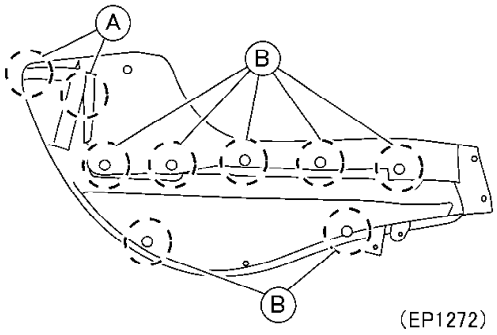
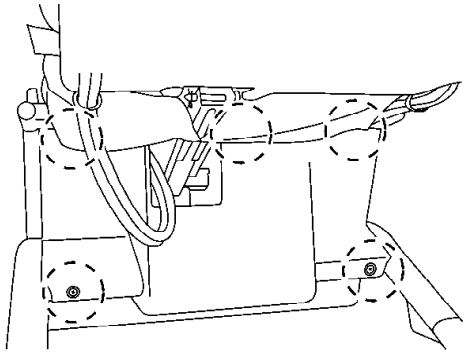


8. Peel off the Velcro tapes (A) and remove seven Brushclips (B).



9. Unscrew five Push-turn rivets and remove the Under cover.



10. Pull out the Zipper end and the cut the Insulated tie and unzip the Zippers.
Unscrew five Push-turn rivets (A) and unhook the Hook (B).

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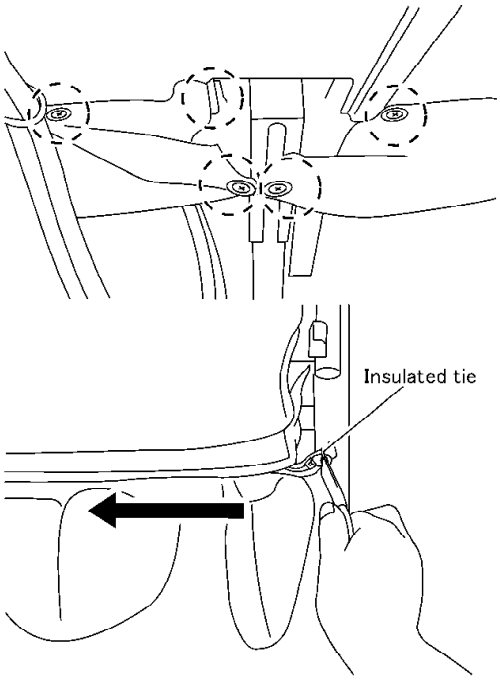
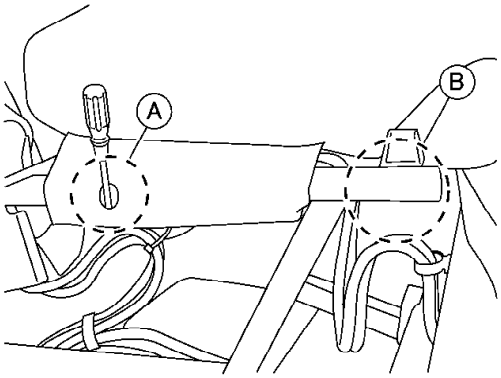


11. Insert a slotted screwdriver, etc into the hole (A) and push it to unhook the Hook.
Unscrew a Push-turn rivet on each sides.
Then, you can remove the Seat.



7.2. Removing the Massage mechanism block

1. Insert a screwdriver and unlock the lock and fall the Upper main body forward.

*** Be careful that the Upper main body may fall forward suddenly.**
*** It will be convenient if you fall the Upper main body forward to work on the Massage mechanism block.**
*** If you has removed the Seat, put it back on the Frame. Otherwise, the Massage wheel cover may get scratched.**

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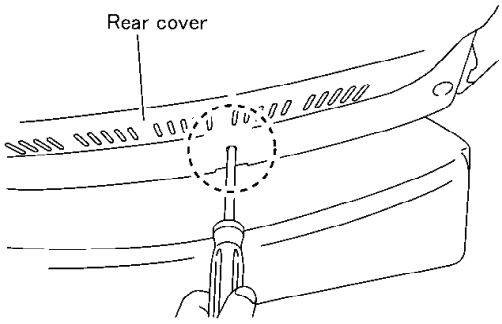
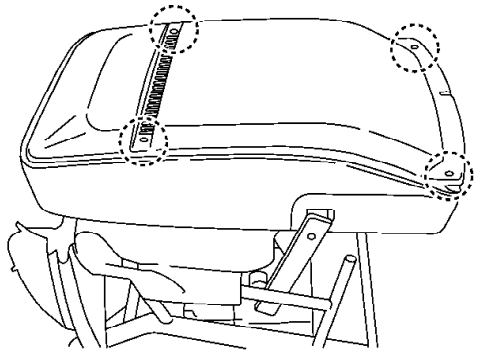
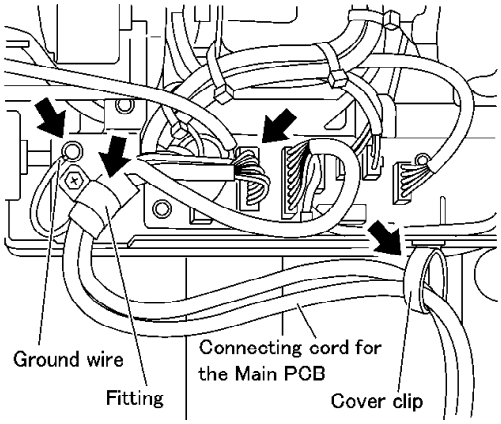


2. Unscrew four screws.



3. Unscrew the screw for the Ground wire and the screw for the Fitting and the take off the Cover clip and remove the Connecting cord for the Main PCB.



7.3. Removing the parts of the Massage mechanism block

1. Take off the Spring (A).
Turn the both ends of the Tapping shaft anticlockwise with spnanners.

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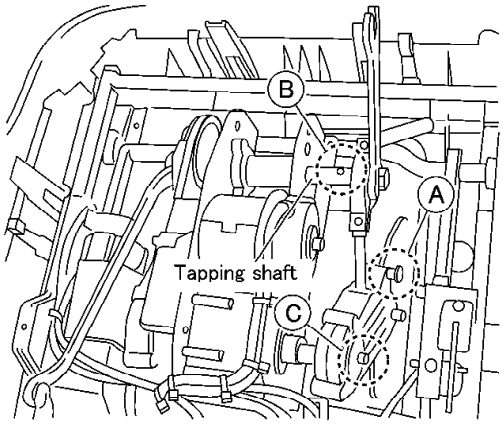
After a bolt with a washer on one side is removed,insert a bar, etc. into the hole (B) to hold and turn the Spanner again to remove the other bolt.
The bolts are locked with glue. When assembling them, use the prroper glue.
Unscrew the Nut (C).
Then, you can take off the Arm block.



2. Unscrew six screws with nuts (A).
Unscrew one screw with nuts (B).
Unscrew one nut (C) with a bolt.

Take off the Spring (D).
Unscrew one screw with a nut.

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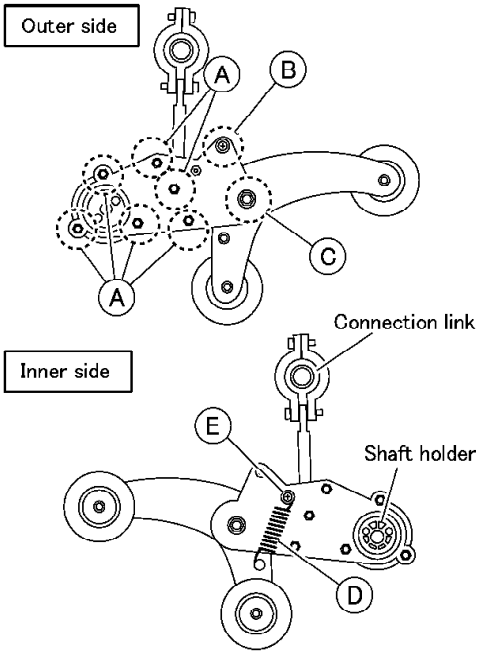
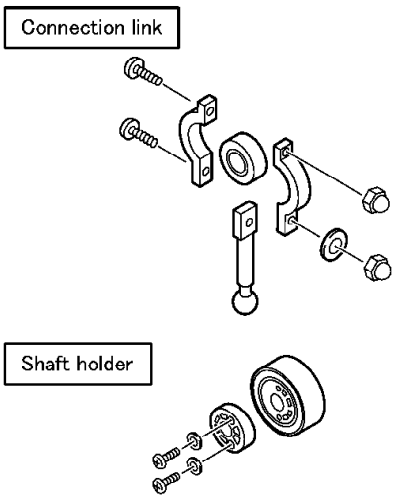


3. Unscrew two screws with a wahser and a nut on the Connection link.
Unscrew two screws with a washer.



4. Take off the Tapping belt and the Pulley.

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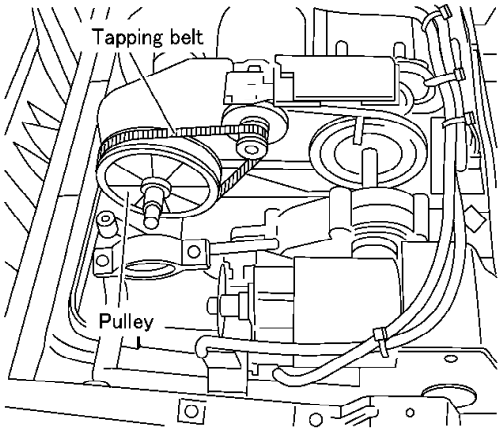
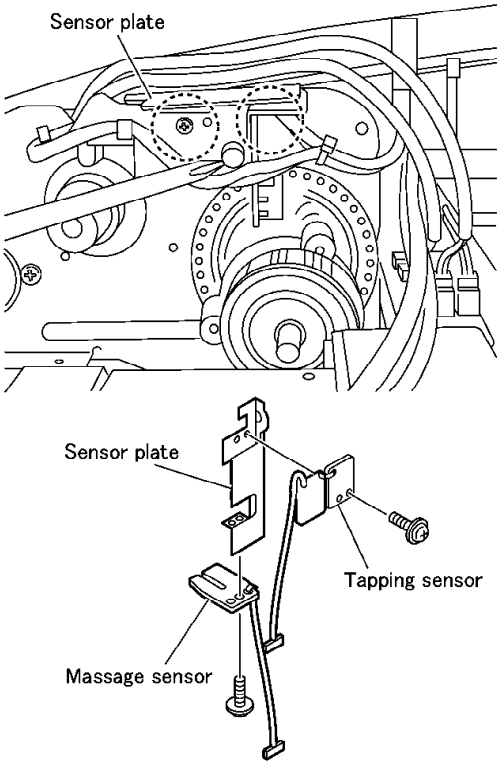


5. Unscrew two screws on the Sensor plate.
Unscrew one screw from each Sensor.



6. Unscrew four screws and remove the Tapping motor.

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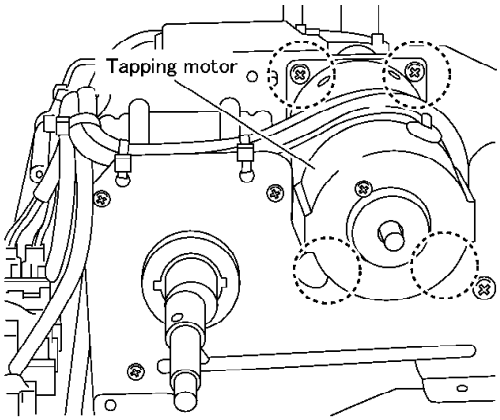
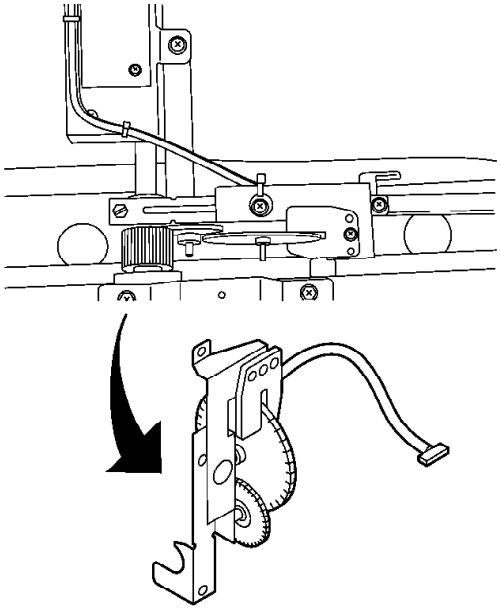


7. Unscrew three screws and remove the Up/down sensor block.
Unscrew one screw from the Up/down sensor block and remove the Up/down sensor.



8. Unscrew two screws from the Connection PCB (A) and remove the Connection PCB.
Unscrew two screws from the Connection PCB board (B) and remove the Connection PCB board.

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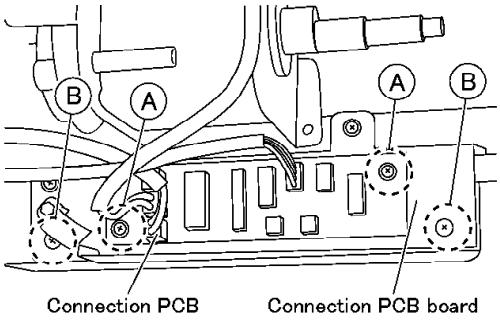
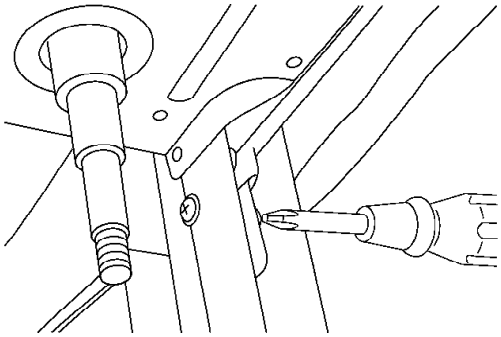
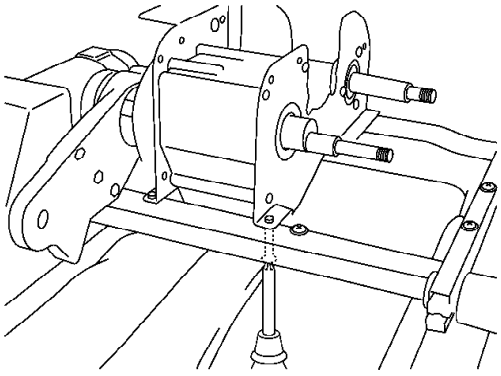


9. Unscrew seven screws on the Massage mechanism block cover with a small screwdriver and remove the Massage mechansim block cover.



10. Unscrew four screws and remove the Massage gear block.



11. Unscrew three screws (A) on the Tapping shaft holder on each sides and unscrew four screws (B) on the Massage gear block.

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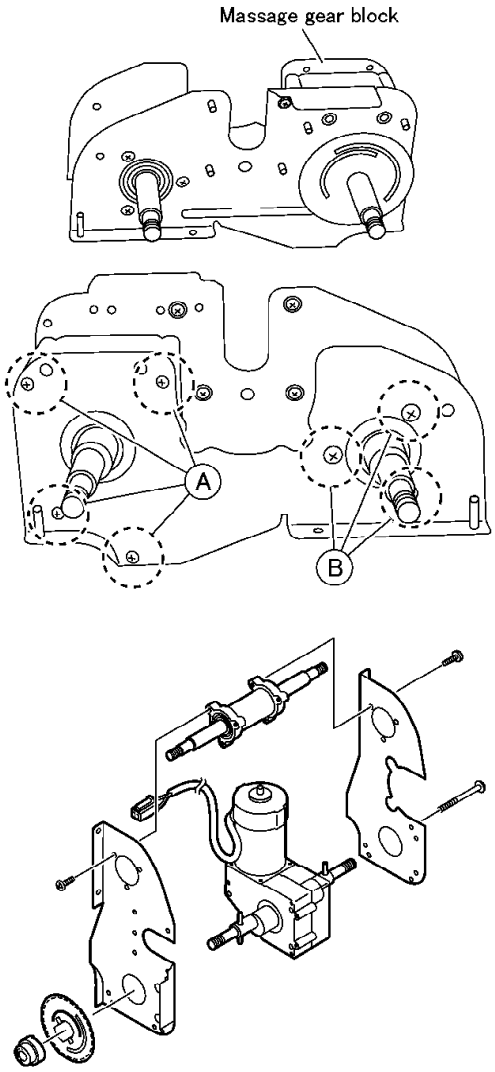
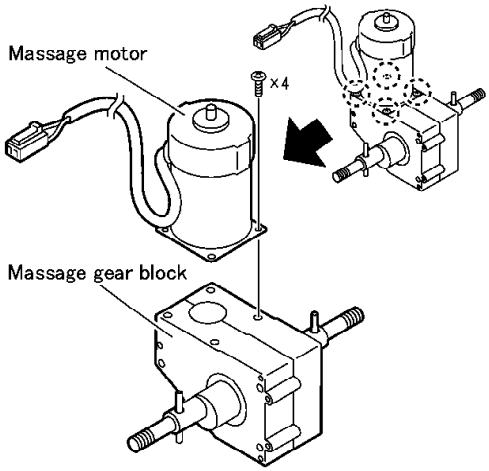


12. Unscrew four screws and remove the Massage gear block.



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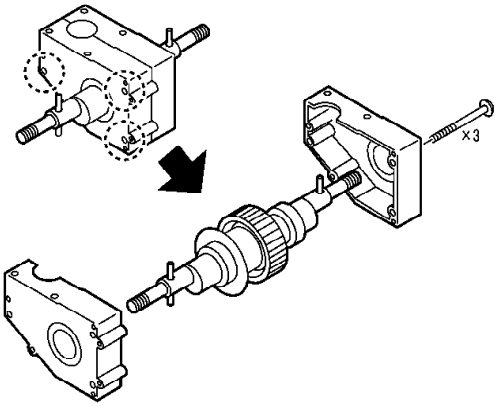
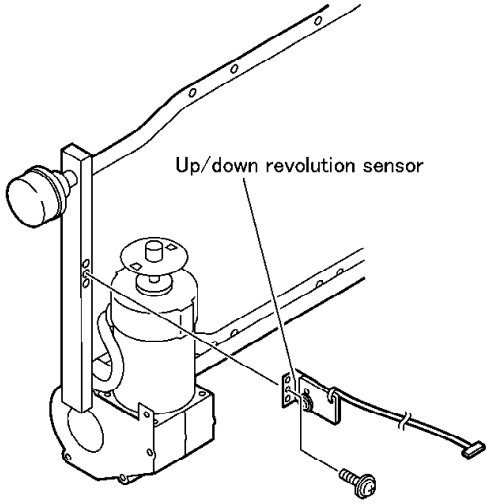
13. Unscrew three screws.



14. Unscrew one screw and remove the Up/down revolution sensor.



15. Unscrew four screws and remove the Up/down motor.

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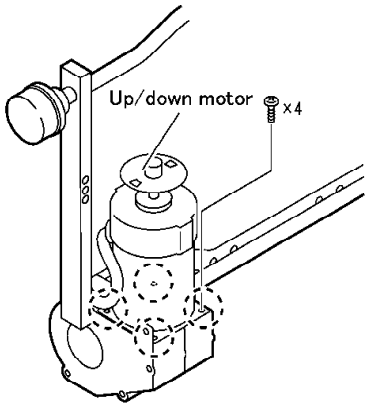
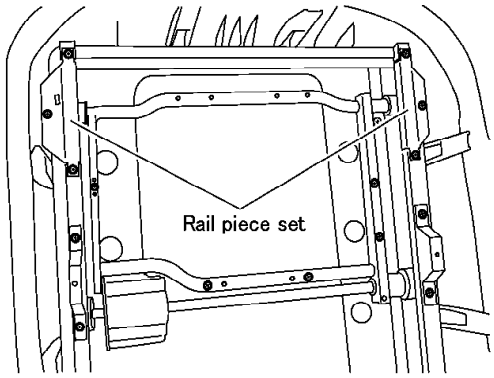


16. Unscrew three screws on each Rail piece sets.

*** When you remove the Massage mechanism block frame, be sure to hold the right Guide roller so that its Spring may not spring out.**



17. Unscrew four screws (A) and slide the Shaft holder (B) inward and remove the Up/down gear block.

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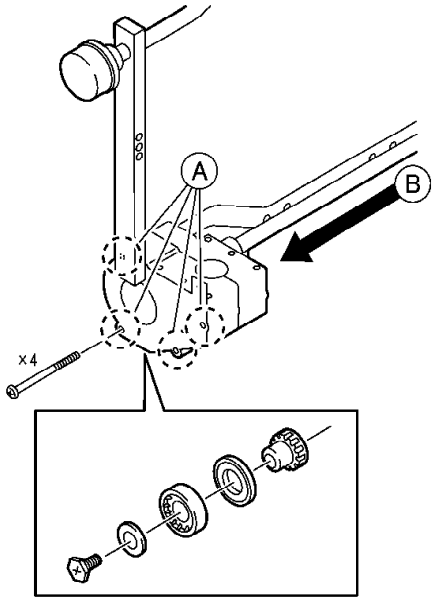
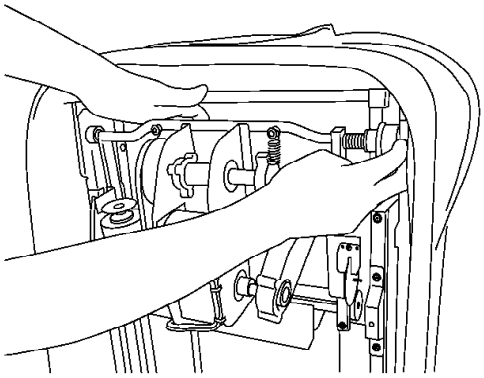


18. You can proceed the procedures from 1 to 14 with the Massage mechanism block on.
However, you can remove the Massage mechanism block first for your conveniences before working on the parts of the Massage mechanism block.



7.4. Removing the Massage wheel cover

1. Proceed the procedures 1. to 7. of 7.1. Removing the Head rest, Back rest cushion, Arm rest.

2. Cut off the Insulated ties and remove four Brushclips.

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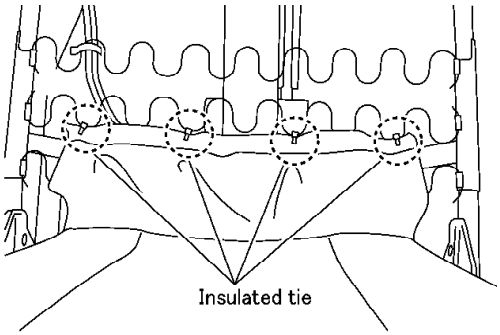
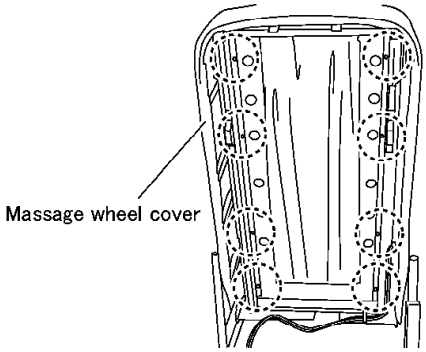
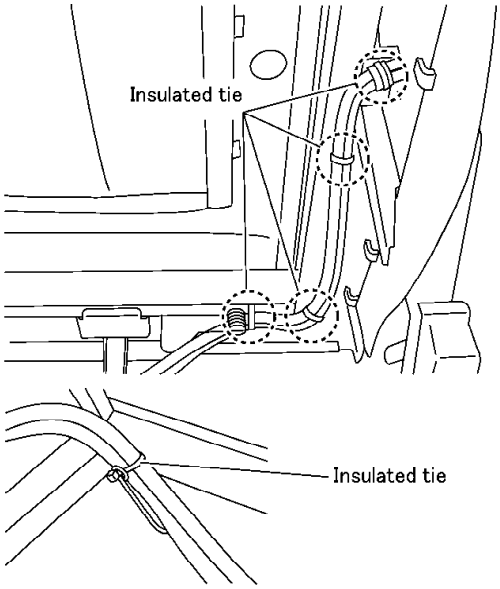


3. Unscrew eight screws.



4. Cut off five Insulated ties.



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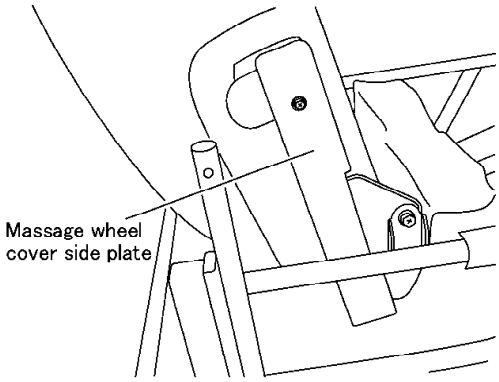
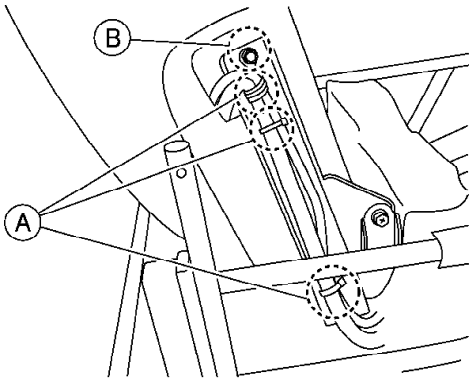
5. **Unscrew two screws on each Massage wheel cover side plates and remove the Massage wheel cover side plates.**



6. **Cut off three Insulated ties (A) on the right side and unscrew a bolt on each sides.**
   Remove the Massage wheel cover.



7.5. Removing the Power source switch box

1. **Unscrew two screws on the inner side.**

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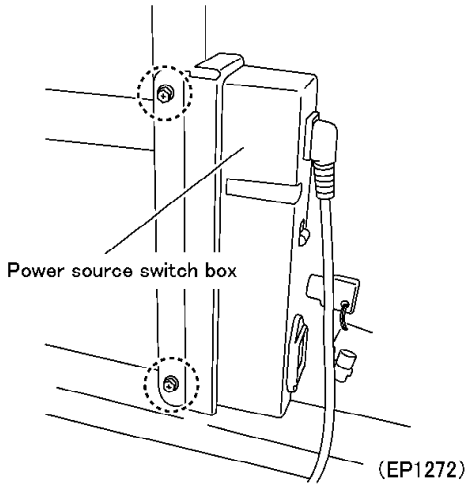
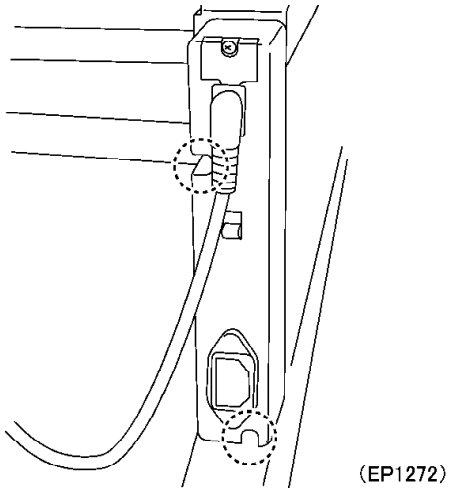
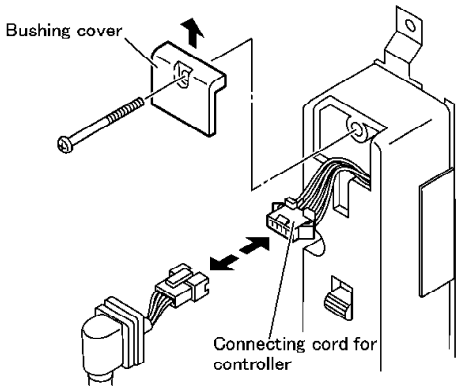


2. Unscrew two screws.



3. Remove the Bushing cover and pull out the Controller cord and take off the Connector.



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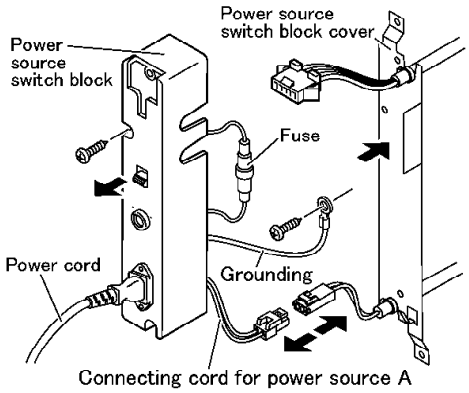
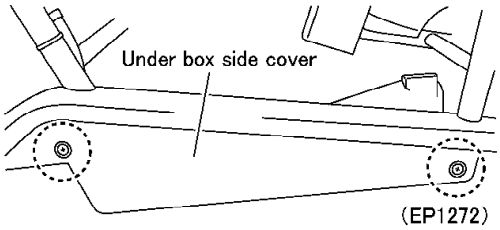
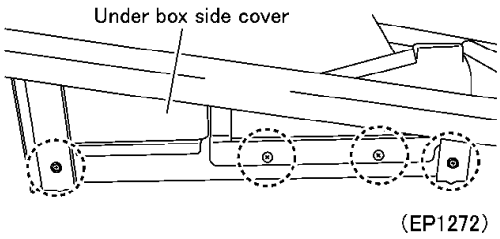


7.6. Removing the Under box

1. Unscrew two Push-turn rivets on both sides.



2. Unscrew four screws and remove the Under box top cover.



3. Unscrew two screws each on the Under box top left cover and the Under box top right cover and remove both covers.

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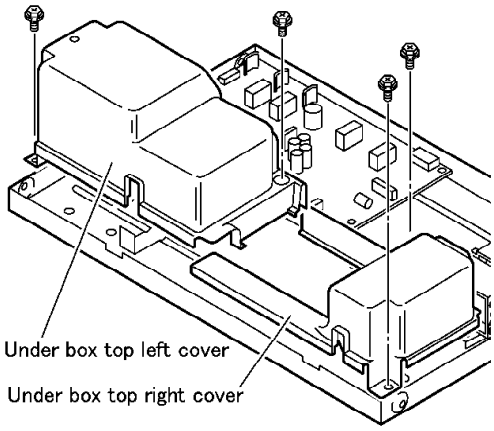
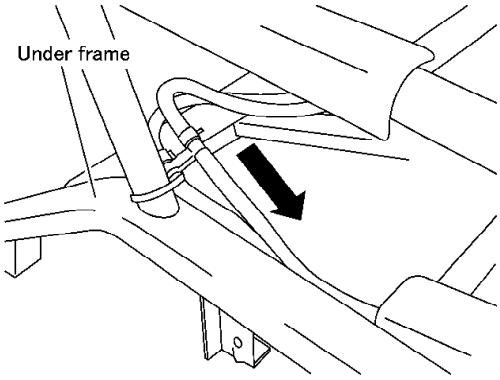
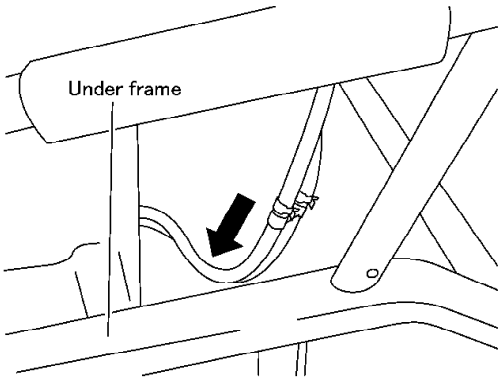


4. Pull out the Hoses on both sides.





5. Remove two Fittings (A), three Insulated ties (B), three Ground wires (C), and disconnect the Connectors.
Then, you can take out the Under box.

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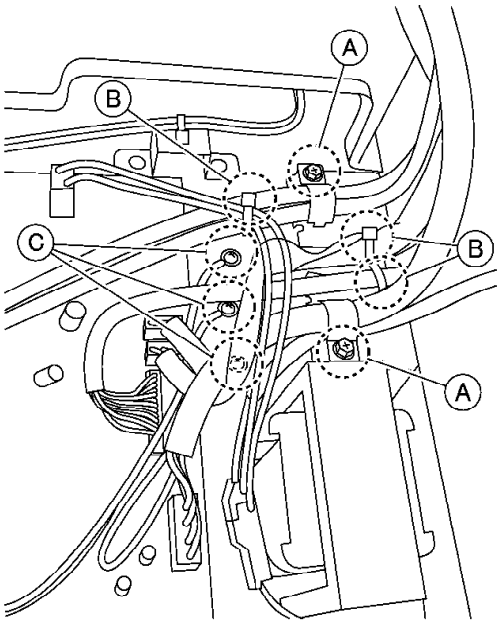
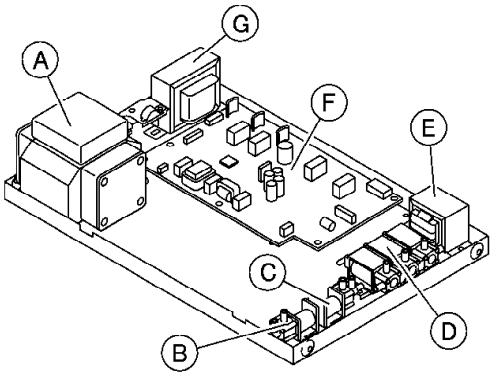


A: Air pump
B: Thee-way electromagnetic valve
C: Two-way electromagnetic valve
D: Three-way three-row electromagnetic valve
E: Power source transformer
F: Main PCB
G: Sub Transformer



7.7. Removing the Ottoman lift unit

1. **Proceed the procedures of 7.1. Removing the Head rest, Back rest cushion, Arm rest.**
2. **Proceed the procedures of 7.6. Removing the Under box.**
3. **Take off two Connectors (CN14, CN3) as the figure.**

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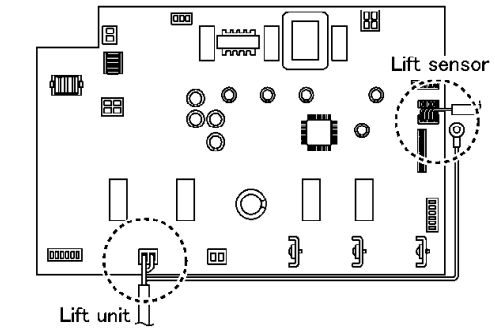
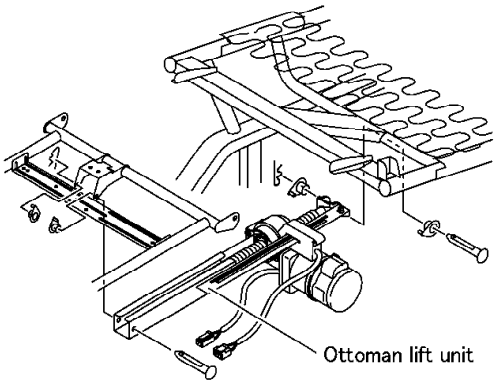
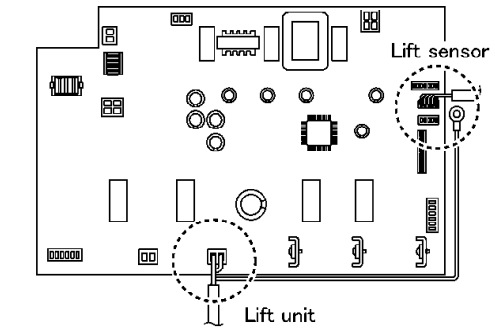
4. **Take off the Hinge pin large and the Snap pin large, and take off the Lift unit.**





7.8. Removing the Reclining lift unit

1. **Proceed the procedures of 7.1. Removing the Head rest, Back rest cushion, Arm rest.**
2. **Proceed the procedures of 7.6. Removing the Under box.**
3. **Take off two Connectors (CN16, CN4) as the figure.**
4. **Take off the Hinge pin large and the Snap pin large, and take off the Lift unit.**



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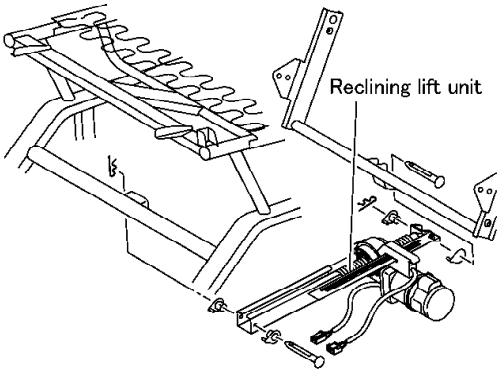
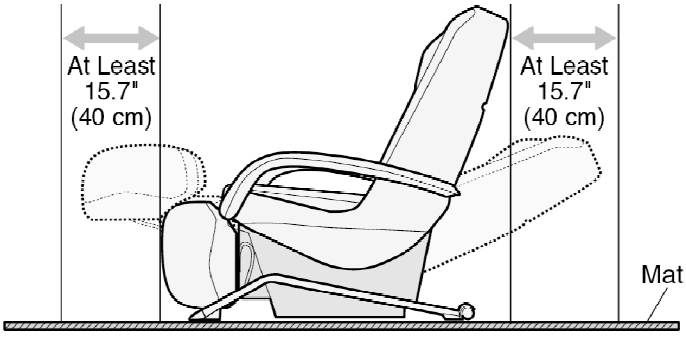


8. EXAMINATION AFTER INSPECTION AND PREPARING

- Check all operations with the massage block operation test switch.
- Check that the massage block operates using the controller.
- Check that the massage block operates loaded (i.e. sit in the chair and check).
- Upon finishing repairs, when placing the chair, make sure that it has enough space to fully recline. There should be more than 15.7"(40cm) between the wall and the chair when in the upright position.



(EP1272)

9. CHECKING

9.1. Checking Controller and Massage mechanism block

Checking procedure
Massage mechanism block does not move even if pushing the buttons on the Controller.

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Check the Massage mechanism block.

↓

Test method

1. **Turn off the switch on the Power source switch box and return it on.**
2. **Push the switch of the Test mode on the Main PCB.**

Massage mechanism block test mode

1. **Massage mechanism block moves to the bottom operating the Up/ down and Width movement.**
2. **Massaging is operated at the bottom for approx. a couple of times.**
3. **hen, it moves from the bottom to the shoulder operating Massagind and Rolling and moves down as little.**
4. **Massaging, Swedish, Hawaiian, and Compression are operated each once on the shoulder and tapping for five sec.**
5. **Massaging, Soft shiatsu, and Full rolling are operated from the shoulder to the bottom.**
6. **Wide tapping and Full rolling are operated from the bottom to the shoulder.**
7. **Wide Full rolling is operated from the shoulder to the top.**
8. **It stops at the toppest and widest position.**
9. **It buzzes once and stops.**

If ubnormality incidents such as motor locking happen in the test mode, the Massage mechanism block stops right away.
However, the Controller test mode continues.

Controller test mode

1. **Start the Massage mechanism block test mode and light all the Controller LEDs and check if it buzzes twice.**
2. **Then, check if each LEDs light when buttons are pushed.**

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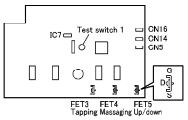
Switch	LED	Switch	LED
On/off	On/off + speed 1,2,3	Regional rolling	Regional rolling
Stio	Time 15 min.	Soft shiatsu	Soft shiatsu
Reclining up	Time 12 min.	Tapping	Tapping
Reclining down	Time 9 min.	Fast	Speed 5
Ottoman top	Time 6 min.	Slow	Speed 4
Ottoman bottom	Time 3 min.	Top	Speed 3 + Leg massaging weak
Kneading	Kneading	Bottom	Speed 1 + Leg massaging strong
Comression	Comression	Narrow	Speed 2 + Leg massaging middle
Full rolling	Full rolling	Wide	Manual
Swedish	Swedish	Leg stretching	Leg stretching
Hawaiian	Hawaiian	Leg massaging	Leg massaging + Leg massaging weak, middle, strong
		Auto switch	Pre-programs

You can check the data transfer by the Controller test mode between Main body to Controller. If there is something wrong with the data transfer, LEDs do not light, It might be that the Controller cord or the Connecting cord for Controller A is disconnected.



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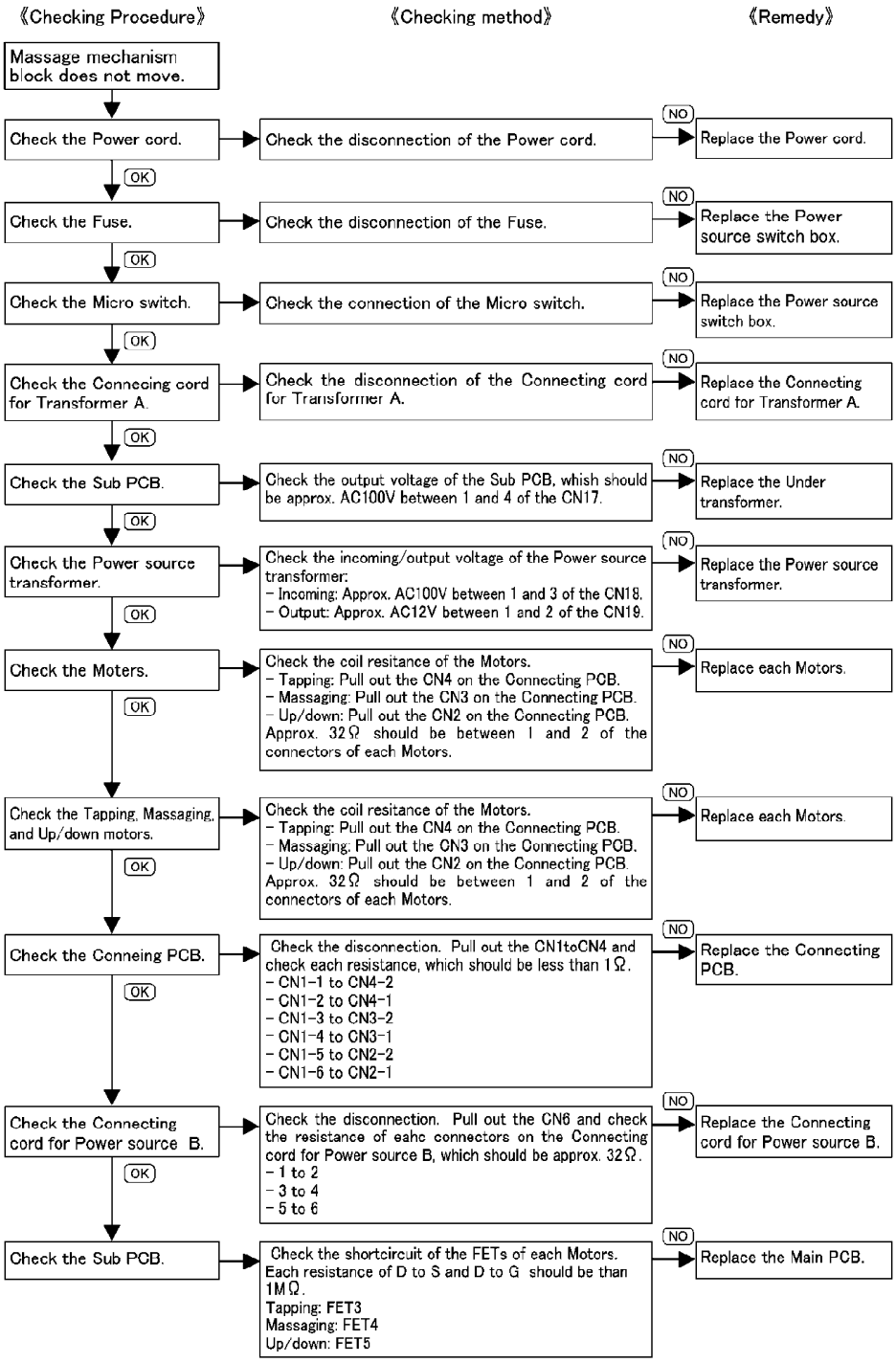
《Checking Procedure》
《Checking method》
《Remedy》
Massage mechanism block does not move.
Check the Power cord.
Check the disconnection of the Power cord.
NO
Replace the Power cord.
OK
Check the Fuse.
Check the disconnection of the Fuse.
NO
Replace the Power source switch box.
OK
Check the Micro switch.
Check the connection of the Micro switch.
NO
Replace the Power source switch box.
OK
Check the Conneeing cord for Transformer A.
Check the disconnection of the Connecting cord for Transformer A.
NO
Replace the Connecting cord for Transformer A.
OK
Check the Sub PCB.
Check the output voltage of the Sub PCB, whish should be approx. AC100V between 1 and 4 of the CN17.
NO
Replace the Under transformer.
OK
Check the Power source transformer.
Check the incoming/output voltage of the Power source transformer:
- Incoming: Approx. AC100V between 1 and 3 of the CN18.
- Output: Approx. AC12V between 1 and 2 of the CN19.
NO
Replace the Power source transformer.
OK
Check the Moters.
Check the coil resitance of the Motors.
- Tapping: Pull out the CN4 on the Connecting PCB.
- Massaging: Pull out the CN3 on the Connecting PCB.
- Up/down: Pull out the CN2 on the Connecting PCB.
Approx. 32Ω should be between 1 and 2 of the connectors of each Motors.
NO
Replace each Motors.
OK
Check the Tapping, Massaging, and Up/down motors.
Check the coil resitance of the Motors.
- Tapping: Pull out the CN4 on the Connecting PCB.
- Massaging: Pull out the CN3 on the Connecting PCB.
- Up/down: Pull out the CN2 on the Connecting PCB.
Approx. 32Ω should be between 1 and 2 of the connectors of each Motors.
NO
Replace each Motors.
OK
Check the Conneing PCB.
Check the disconnection. Pull out the CN1toCN4 and check each resistance, which should be less than 1Ω.
- CN1-1 to CN4-2
- CN1-2 to CN4-1
- CN1-3 to CN3-2
- CN1-4 to CN3-1
- CN1-5 to CN2-2
- CN1-6 to CN2-1
NO
Replace the Connecting PCB.
OK
Check the Connecting cord for Power source B.
Check the disconnection. Pull out the CN6 and check the resistance of eahc connectors on the Connecting cord for Power source B, which should be approx. 32Ω.
- 1 to 2
- 3 to 4
- 5 to 6
NO
Replace the Connecting cord for Power source B.
OK
Check the Sub PCB.
Check the shortcircuit of the FETs of each Motors.
Each resistance of D to S and D to G should be than 1MΩ.
Tapping: FET3
Massaging: FET4
Up/down: FET5
NO
Replace the Main PCB.

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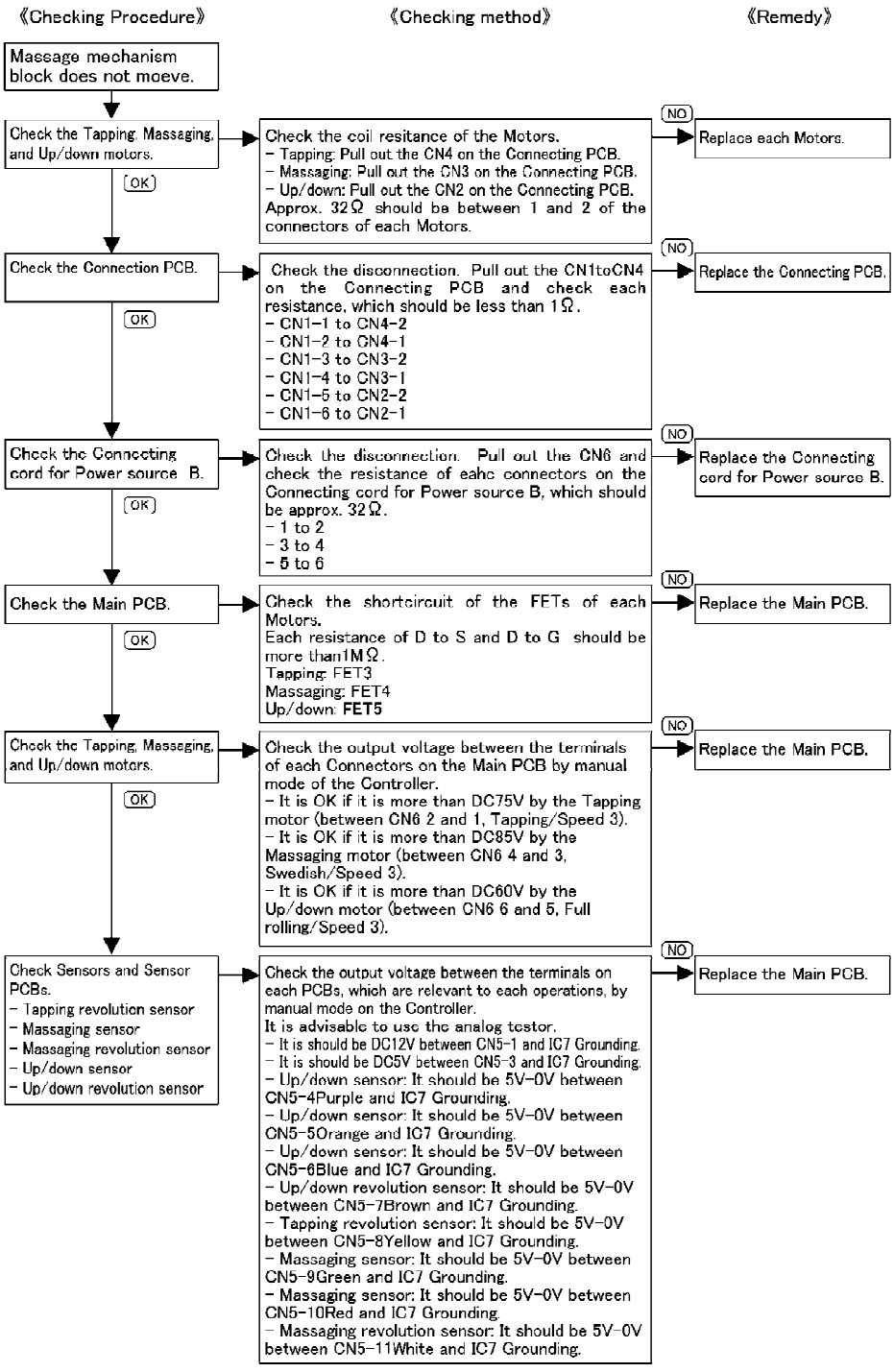
《Checking Procedure》
《Checking method》
《Remedy》
Massage mechanism block does not moeve.
Check the Tapping, Massaging, and Up/down motors.
OK
Check the coil resitance of the Motors.
– Tapping: Pull out the CN4 on the Connecting PCB.
– Massaging: Pull out the CN3 on the Connecting PCB.
– Up/down: Pull out the CN2 on the Connecting PCB.
Approx. 32Ω should be between 1 and 2 of the connectors of each Motors.
NO
Replace each Motors.
Check the Connection PCB.
OK
Check the disconnection. Pull out the CN1toCN4 on the Connecting PCB and check each resistance, which should be less than 1Ω.
– CN1–1 to CN4–2
– CN1–2 to CN4–1
– CN1–3 to CN3–2
– CN1–4 to CN3–1
– CN1–5 to CN2–2
– CN1–6 to CN2–1
NO
Replace the Connecting PCB.
Check the Connecting cord for Power source B.
OK
Check the disconnection. Pull out the CN6 and check the resistance of eahc connectors on the Connecting cord for Power source B, which should be approx. 32Ω.
– 1 to 2
– 3 to 4
– 5 to 6
NO
Replace the Connecting cord for Power source B.
Check the Main PCB.
OK
Check the shortcircuit of the FETs of each Motors.
Each resistance of D to S and D to G should be more than1MΩ.
Tapping: FET3
Massaging: FET4
Up/down: FET5
NO
Replace the Main PCB.
Check the Tapping, Massaging, and Up/down motors.
OK
Check the output voltage between the terminals of each Connectors on the Main PCB by manual mode of the Controller.
– It is OK if it is more than DC75V by the Tapping motor (between CN6 2 and 1, Tapping/Speed 3).
– It is OK if it is more than DC85V by the Massaging motor (between CN6 4 and 3, Swedish/Speed 3).
– It is OK if it is more than DC60V by the Up/down motor (between CN6 6 and 5, Full rolling/Speed 3).
NO
Replace the Main PCB.
Check Sensors and Sensor PCBs.
– Tapping revolution sensor
– Massaging sensor
– Massaging revolution sensor
– Up/down sensor
– Up/down revolution sensor
Check the output voltage between the terminals on each PCBs, which are relevant to each operations, by manual mode on the Controller.
It is advisable to use the analog testor.
– It is should be DC12V between CN5–1 and IC7 Grounding.
– It is should be DC5V between CN5–3 and IC7 Grounding.
– Up/down sensor: It should be 5V–0V between CN5–4Purple and IC7 Grounding.
– Up/down sensor: It should be 5V–0V between CN5–5Orange and IC7 Grounding.
– Up/down sensor: It should be 5V–0V between CN5–6Blue and IC7 Grounding.
– Up/down revolution sensor: It should be 5V–0V between CN5–7Brown and IC7 Grounding.
– Tapping revolution sensor: It should be 5V–0V between CN5–8Yellow and IC7 Grounding.
– Massaging sensor: It should be 5V–0V between CN5–9Green and IC7 Grounding.
– Massaging sensor: It should be 5V–0V between CN5–10Red and IC7 Grounding.
– Massaging revolution sensor: It should be 5V–0V between CN5–11White and IC7 Grounding.
NO
Replace the Main PCB.

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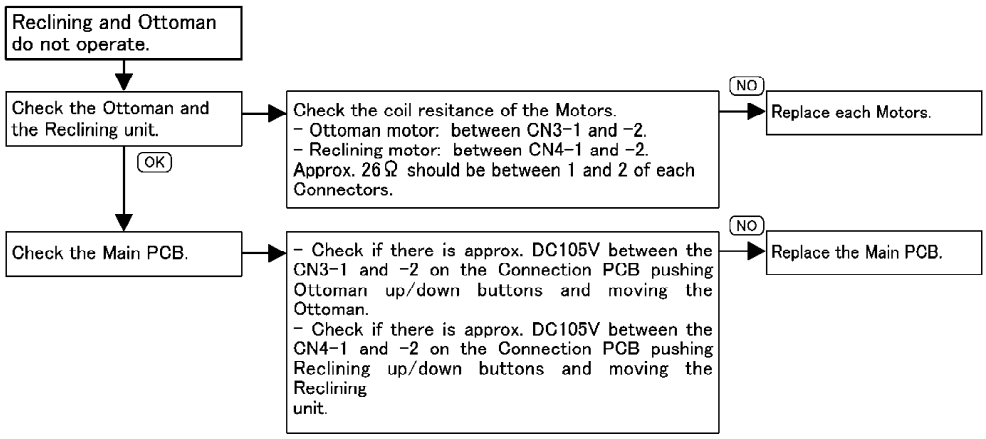
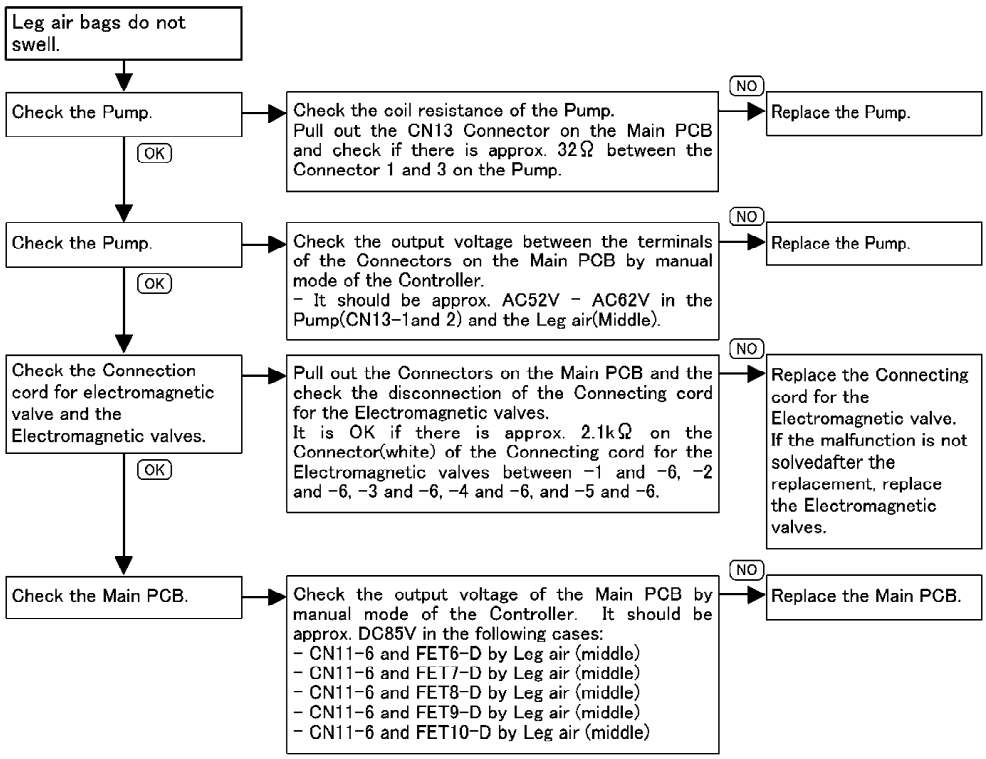
《Checking Procedure》 《Checking method》 《Remedy》

LEDs on the Controller blink and the Back frame and the Ottoman will move in the opposite direction to stop if the Micon on the Main PCB detects the abnormality caused by the extra load on the Ottoman and the Reclining unit.
In this case, the protection function works therefore you should release the function by the On/off switch to resume the operations of the Ottoman and the Reclining unit.


Reclining and Ottoman do not operate.
Check the Ottoman and the Reclining unit.
OK
Check the coil resitance of the Motors.
- Ottoman motor: between CN3-1 and -2.
- Reclining motor: between CN4-1 and -2.
Approx. 26Ω should be between 1 and 2 of each Connectors.
NO
Replace each Motors.
Check the Main PCB.
- Check if there is approx. DC105V between the CN3-1 and -2 on the Connection PCB pushing Ottoman up/down buttons and moving the Ottoman.
- Check if there is approx. DC105V between the CN4-1 and -2 on the Connection PCB pushing Reclining up/down buttons and moving the Reclining unit.
NO
Replace the Main PCB.

《Checking Procedure》 《Checking method》 《Remedy》


Leg air bags do not swell.
Check the Pump.
OK
Check the coil resistance of the Pump.
Pull out the CN13 Connector on the Main PCB and check if there is approx. 32Ω between the Connector 1 and 3 on the Pump.
NO
Replace the Pump.
Check the Pump.
OK
Check the output voltage between the terminals of the Connectors on the Main PCB by manual mode of the Controller.
- It should be approx. AC52V - AC62V in the Pump(CN13-1and 2) and the Leg air(Middle).
NO
Replace the Pump.
Check the Connection cord for electromagnetic valve and the Electromagnetic valves.
OK
Pull out the Connectors on the Main PCB and the check the disconnection of the Connecting cord for the Electromagnetic valves.
It is OK if there is approx. 2.1kΩ on the Connector(white) of the Connecting cord for the Electromagnetic valves between -1 and -6, -2 and -6, -3 and -6, -4 and -6, and -5 and -6.
NO
Replace the Connecting cord for the Electromagnetic valve.
If the malfunction is not solvedafter the replacement, replace the Electromagnetic valves.
Check the Main PCB.
Check the output voltage of the Main PCB by manual mode of the Controller. It should be approx. DC85V in the following cases:
- CN11-6 and FET6-D by Leg air (middle)
- CN11-6 and FET7-D by Leg air (middle)
- CN11-6 and FET8-D by Leg air (middle)
- CN11-6 and FET9-D by Leg air (middle)
- CN11-6 and FET10-D by Leg air (middle)
NO
Replace the Main PCB.

10. HOW TO CHECK THE PRESSURE

10.1. Air bag and the Pump block

1. Cut the Insulated tie of the Hose plug and remove the Hose plug.

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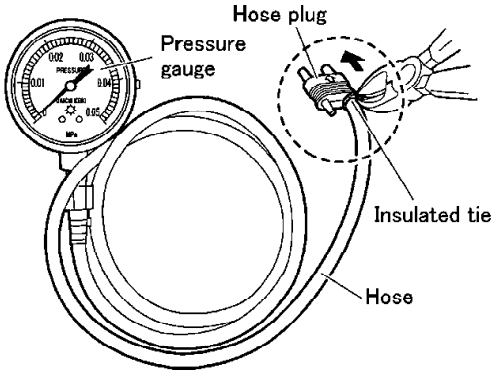
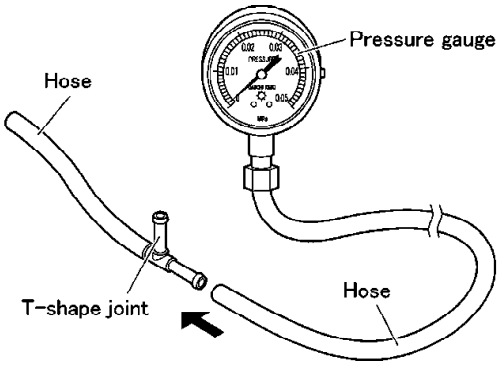
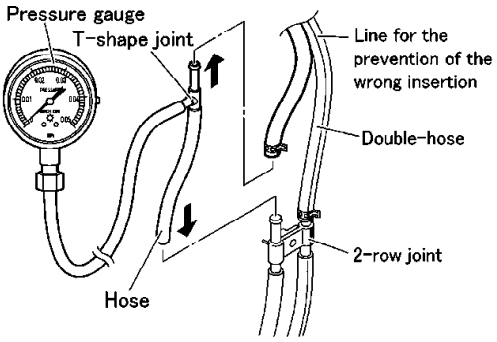


2. Insert the Hose of the Pressure gauge to the T-shape joint.



3. Insert the hose to the end of the hose that you check the air pressure.



4. Push the On/off button and push the Leg massage button and check the maximum value in two minutes.

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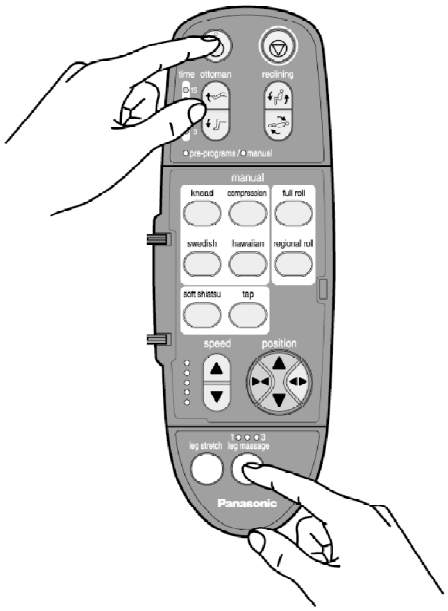

5. Check the pressures at three levels by the intensity adjustment of the Controller. If the pressure values are in the range of the tolerance, the Air bag and the Pump unit are normal.

*** Each Air bags are checked as follows:**

- Leg Air bag large (right side brown hose with line)
Strong 22.5±7
Medium 13.7±7
Weak 6±4

- Leg Air bag small/front (left side black hose with line)
Strong 24±7
Medium 14.5±7
Weak 8±5

- Leg Air bag small/middle (left side black hose without line)
Strong 25.5±7
Medium 15.5±7
Weak 8±5

- Leg Air bag small/back (right side brown hose without line)
Strong 21.5±7
Medium 12.5±7
Weak 7±4

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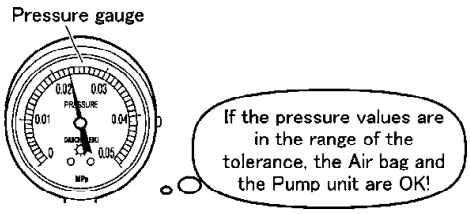
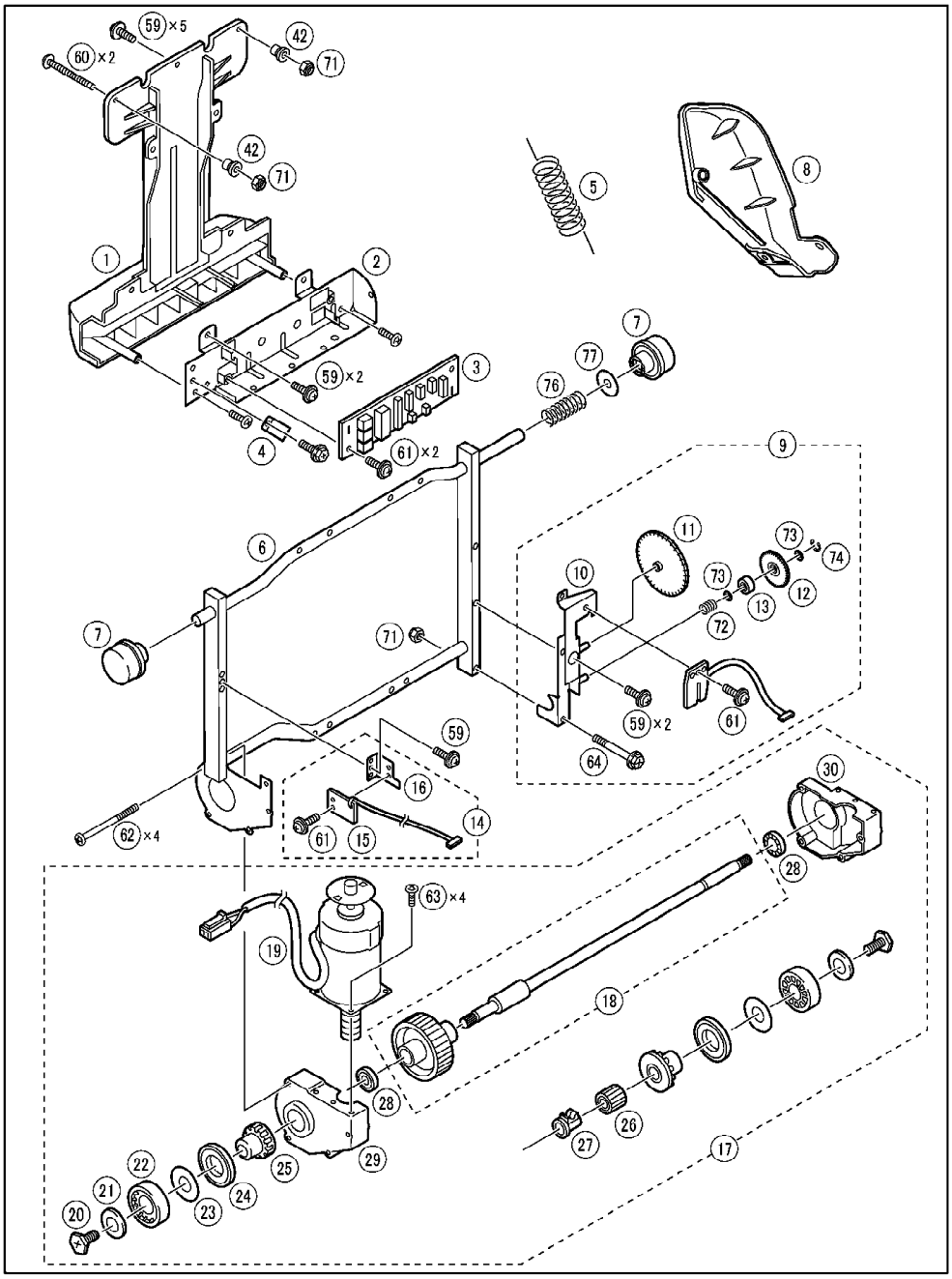


11. EXPLODED VIEW



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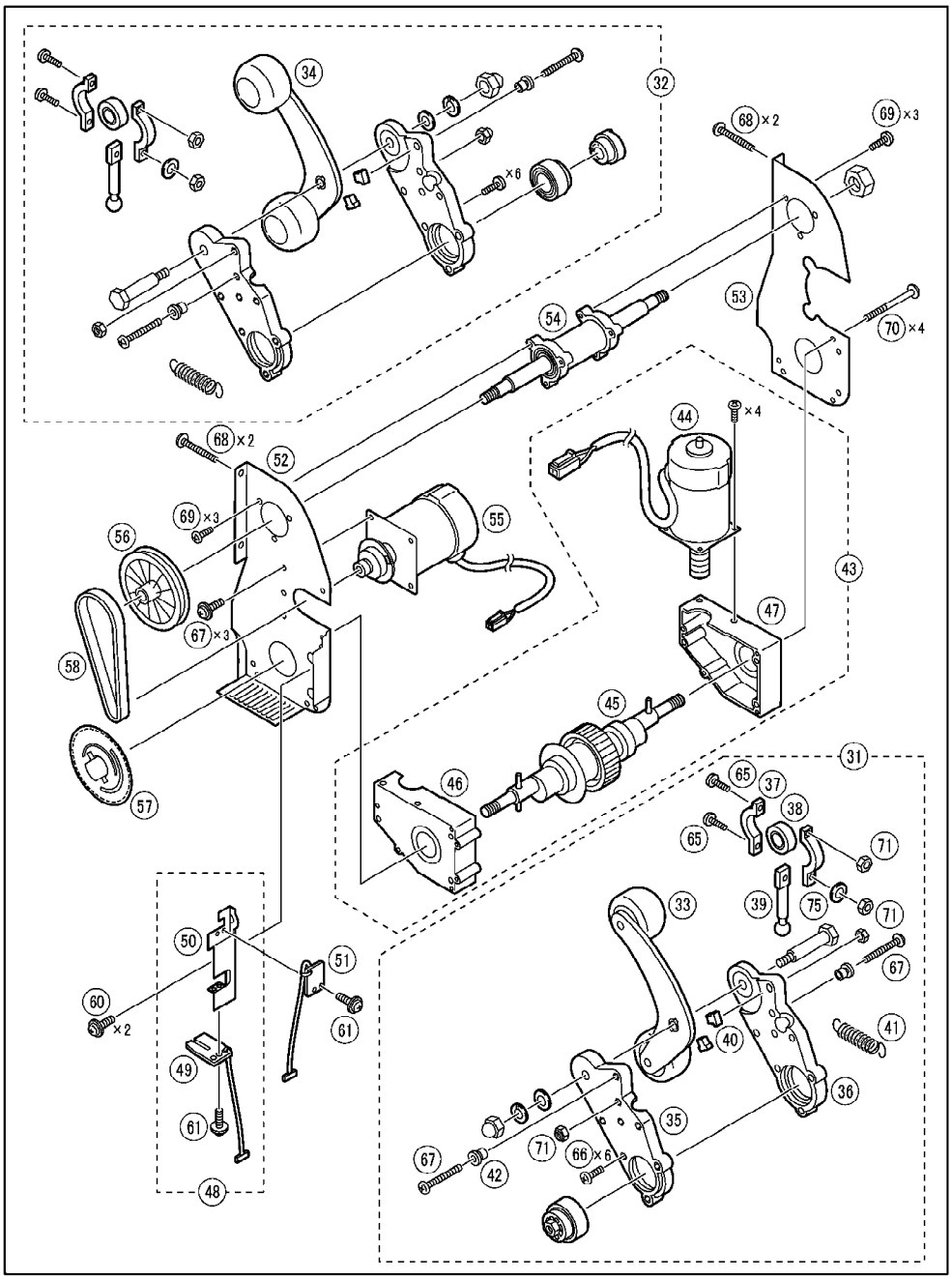

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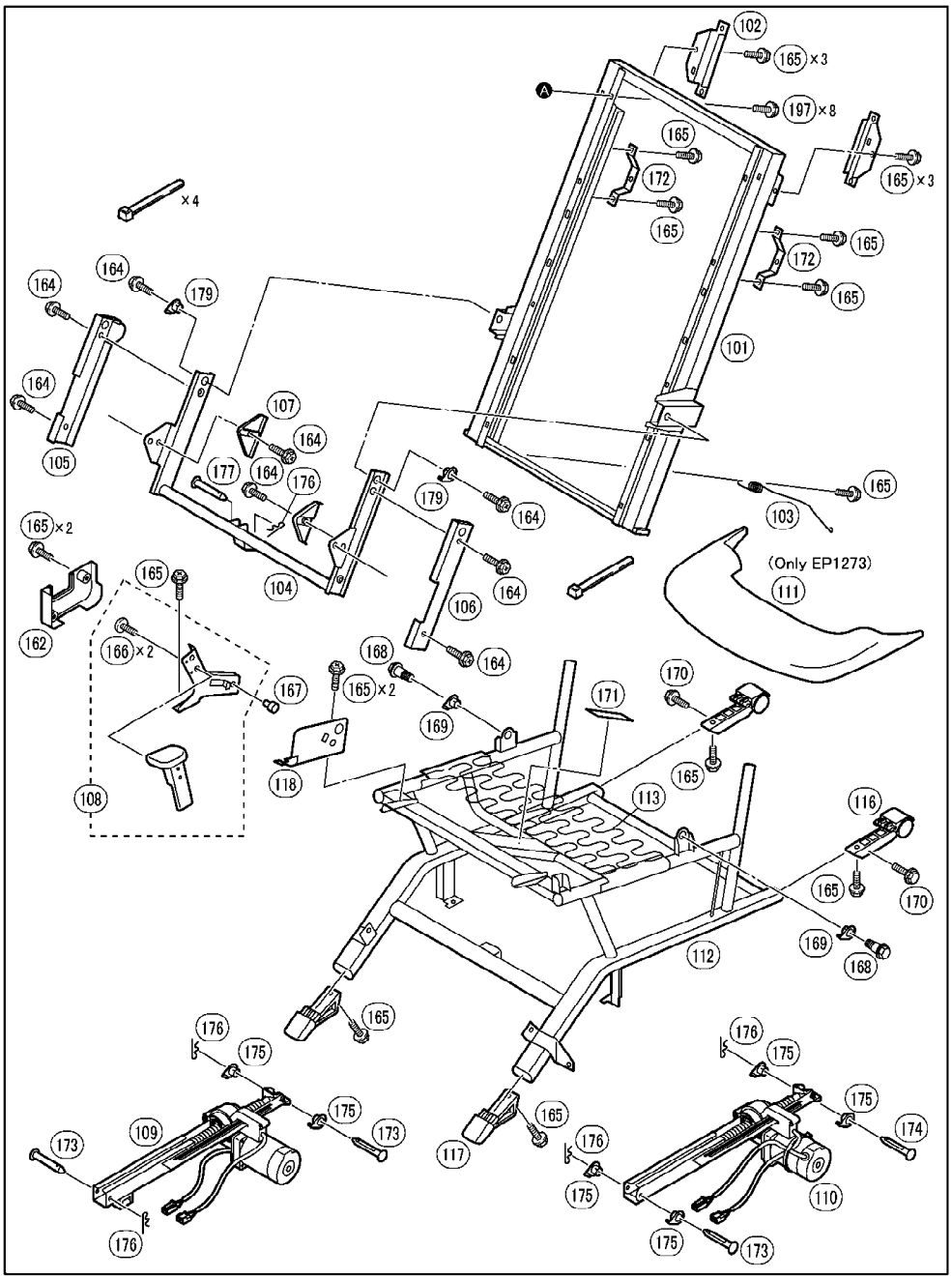

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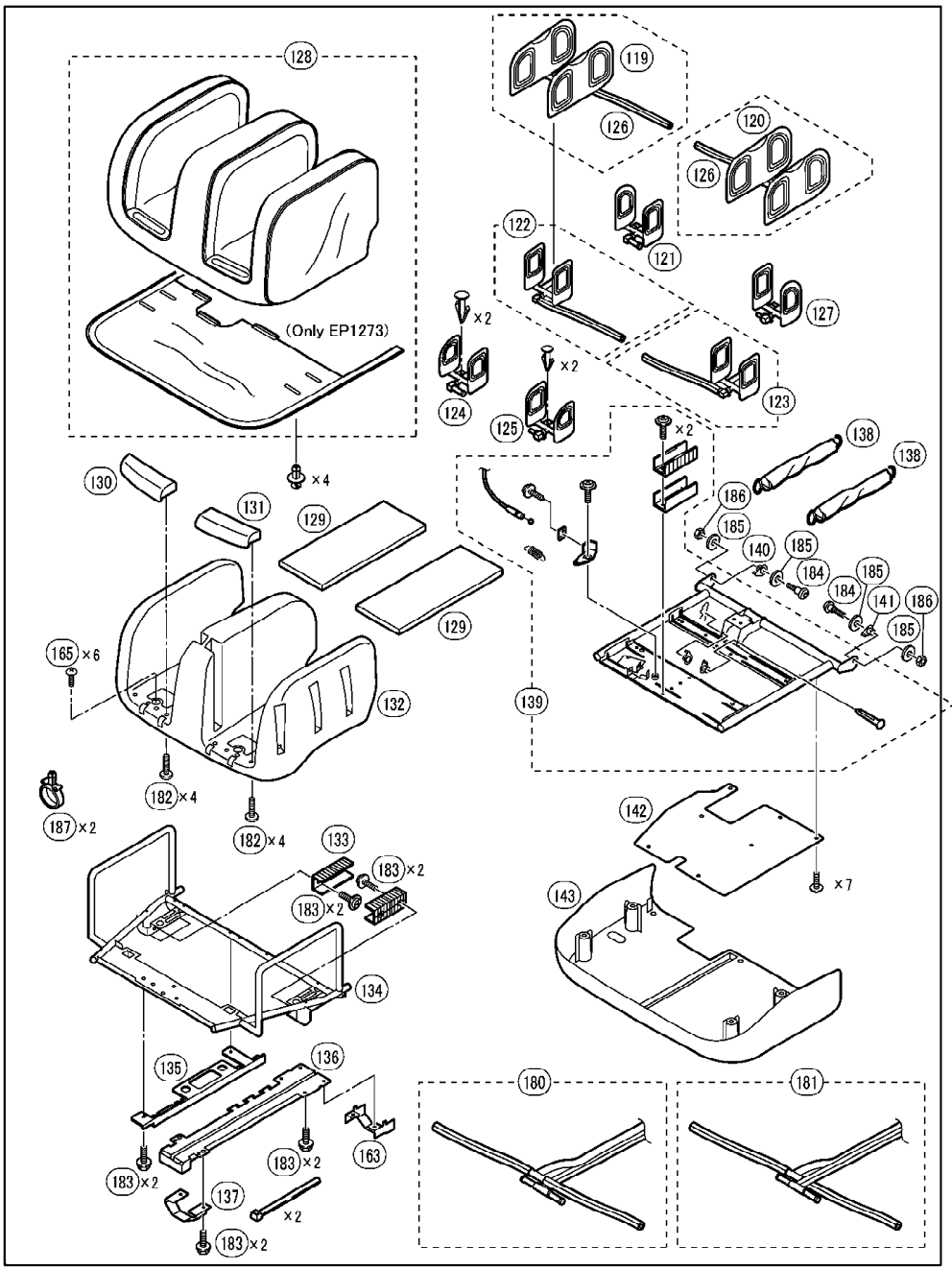

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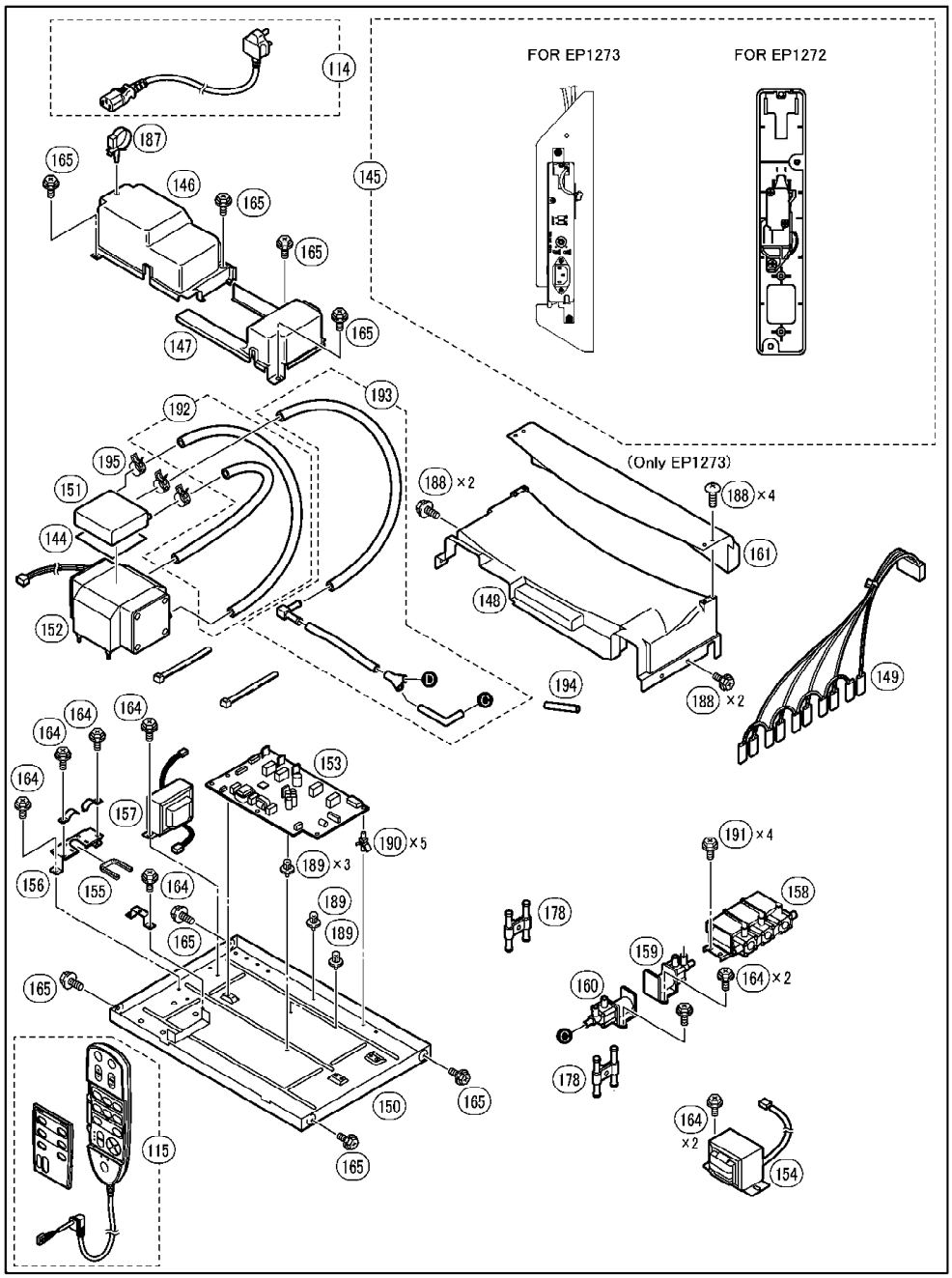

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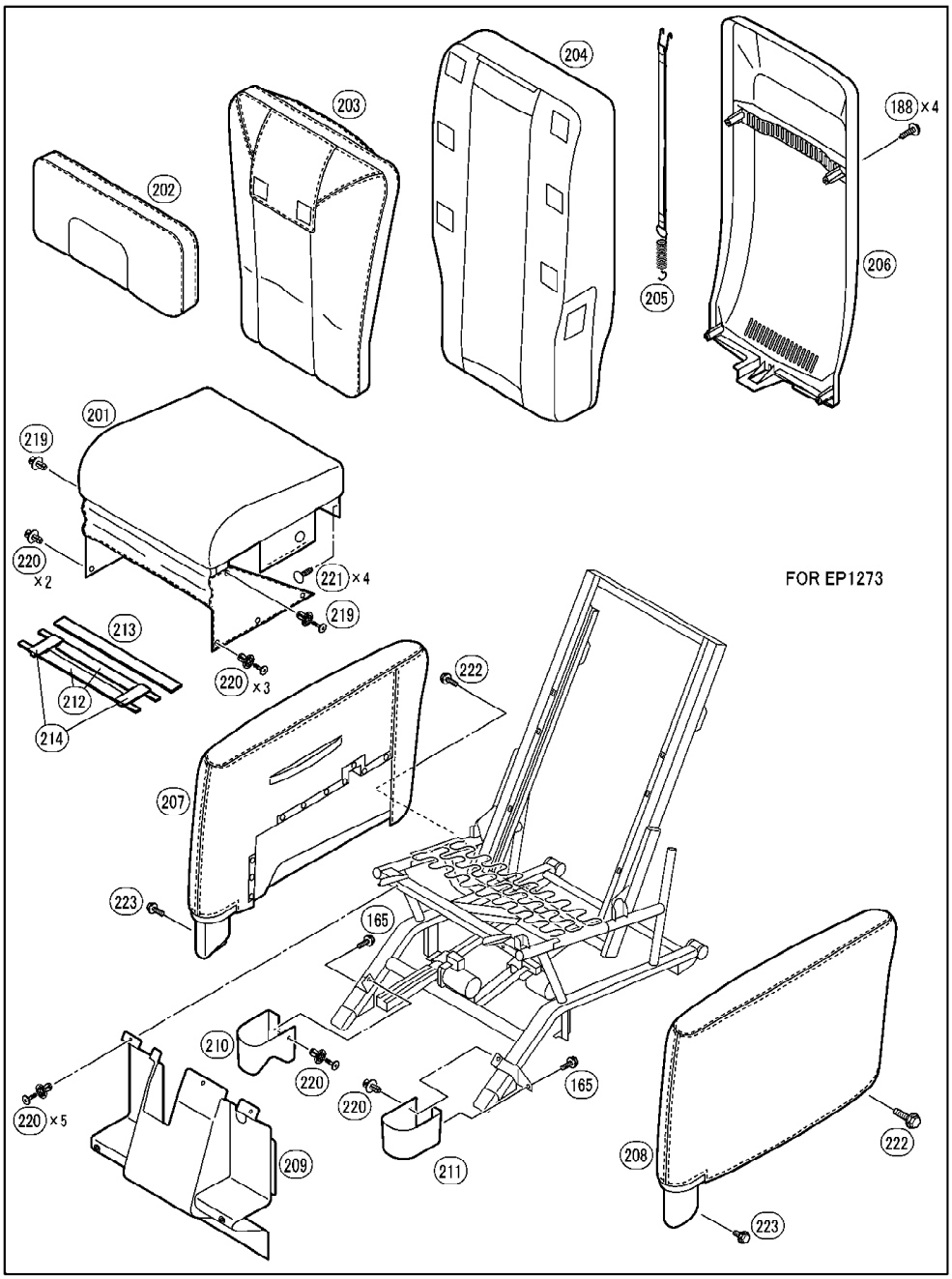

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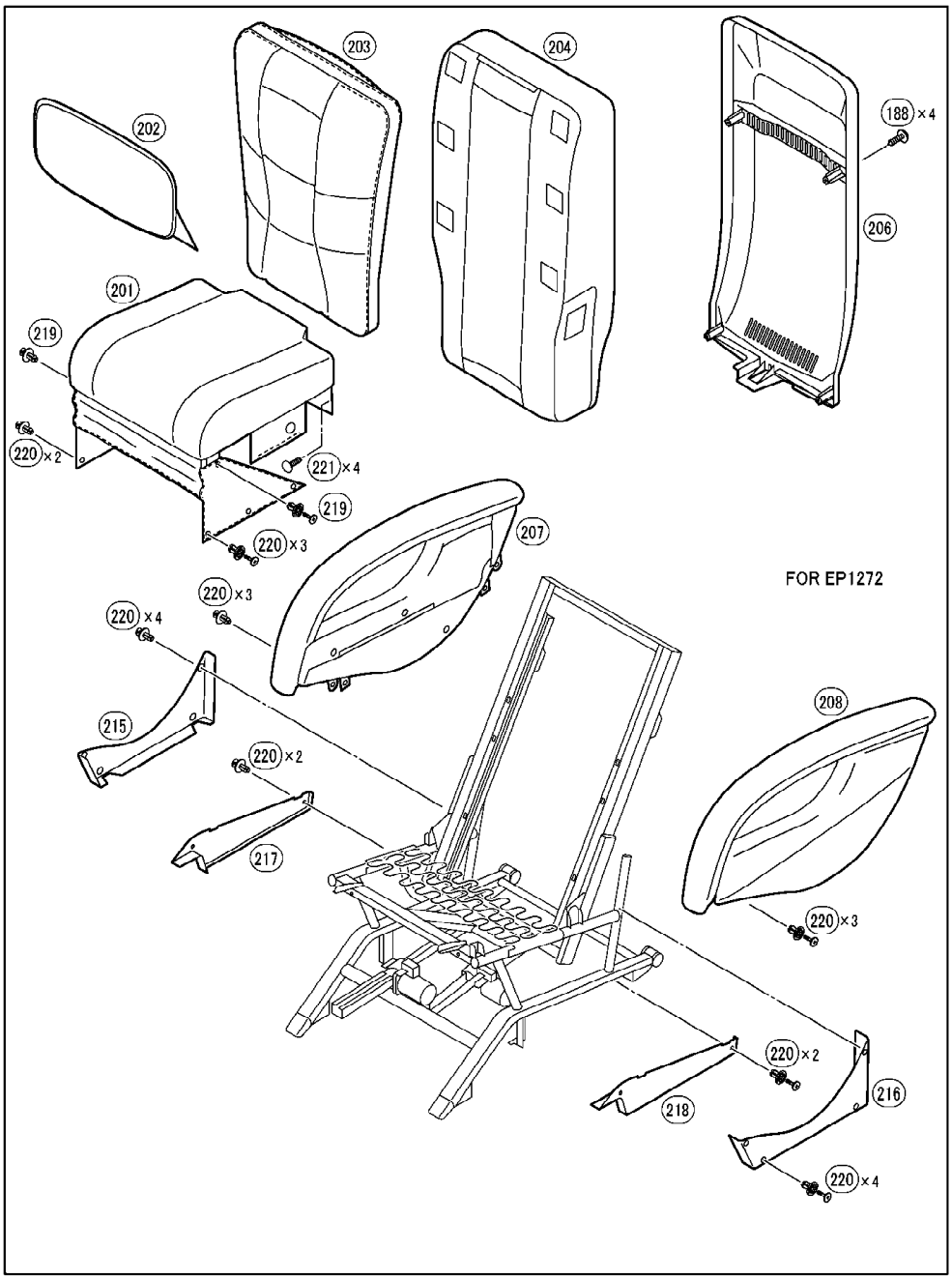

12. REPLACEMENT PARTS LIST

NOTES:

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Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
1	WEP1273L0388	PROTECTION COVER			1
2	WEP1273L0188	CONNECTION PCB PLATE			1
3	WEP1273L2108	CONNECTION PCB			1
4	WEP1273L0218	CONNECTION CORD FITTING			1
5	WEP1273L0198	SPRING LARGE			2
6	WEP1273L0228	MASSAGE BLOCK FRAME			1
7	WEP1273L1968	GUIDE ROLLER			2
8	WEP1273L0398	GREASE COVER			1
9	WEP1273L2118	UP/DOWN SENSOR PCB PLATE BLOCK			1
10	WEP1273L0108	UP/DOWN SENSOR PLATE			1
11	WEP1273L4638	UP/DOWN SENSOR GEAR			1
12	WEP1273L4648	SENSOR GEARA			1
13	WEP1273L4658	SENSOR GEARB			1
14	WEP1273L2128	UP/DOWN REVOLUTION SENSOR PLATE			1
15	WEP1273L2188	UP/DOWN REVOLUTION SENSOR			1
16	WEP1273L0118	UP/DOWN REVOLUTION SENSOR PLATE			1
17	WEP1273L4058	UP/DOWN DRIVING BLOCK			1
18	WEP1273L0378	UP/DOWN WORM WHEEL			1
19	WEP1273L1008	UP/DOWN MOTOR			1
20	WEP1273L6308	UP/DOWN SHAFT BOLT			2
21	WEP1273L6888	STOPPER			2
22	WEP1273L1978	GUIDE ROLLER BOTTOM			2
23	WEP1273L0168	PINION C SPRING			2
24	WEP1273L0618	RUBBER LINK			2
25	WEP1273L4668	UP/DOWN PINION			2
26	WEP1273L4678	UP/DOWN SENSOR DRIVING GEAR			1
27	WEP1273L4958	UP/DOWN SHAFT HOLDER			2
28	WEP1273L4968	UP/DOWN GEAR BOX SHAFT HOLDER			2
29	WEP1273L3508	UP/DOWN GEAR BOX LEFT			1
30	WEP1273L3518	UP/DOWN GEAR BOX RIGHT			1
31	WEP1273L1178	MASSAGE WHEEL LEFT BLOCK			1
32	WEP1273L1188	MASSAGE WHEEL RIGHT BLOCK			1
33	WEP1273L1198	MASSAGE WHEEL LEFT			1
34	WEP1273L1108	MASSAGE WHEEL RIGHT			1
35	WEP1273L3528	MASSAGE WHEEL RIGHT			2
36	WEP1273L3538	MASSAGE WHEEL RIGHT			2
37	WEP1273L0208	MASSAGE WHEEL RIGHT			4
38	WEP1273L3708	SHAFT HOLDER			2
39	WEP1273L1168	CONNECTIONSHAFT			2
40	WEP1273L3638	STOPPER RUBBER			4
41	WEP1273L0128	SPRINGSMALL			4
42	WEP1273L0008	SPRINGPLATE			4
43	WEP1273L4538	MASSAGE GEAR BOX			1
44	WEP1273L1018	MASSAGEMOTOR			1
45	WEP1273L1168	MASSAGESHAFT			1
46	WEP1273L3548	MASSAGE GEAR BOX LEFT			1
47	WEP1273L3558	MASSAGE GEAR BOX RIGHT			1
48	WEP1273L2268	MASSAGE SENSOR PLATE BLOCK			1
49	WEP1273L2278	MASSAGE SENSOR			1
50	WEP1273L0018	MASSAGE SENSOR PLATE			1
51	WEP1273L2288	TAPPING REVOLUTION SENSOR			1
52	WEP1273L0028	MASSAGE PLATE LEFT			1
53	WEP1273L0038	MASSAGE PLATE RIGHT			1
54	WEP1273L4608	TAPPING SHAFT BLOCK			1

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Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
55	WEP1273L1028	TAPPING MOTOR			1
56	WEP1273L1308	TAPPING PULLEY			1
57	WEP1273L1698	MASSAGE REVOLUTION SENSOR PLATE			1
58	WEP1273L1098	TAPPING BELT			1
59	WEP1273L6008	SCREW			10
60	WEP1273L6018	SCREW			4
61	WEP1273L6028	SCREW			6
62	WEP1273L6038	SCREW			4
63	WEP1273L6038	SCREW			4
64	WEP1273L6048	SCREW			1
65	WEP1273L6058	SCREW			4
66	WEP1273L6068	SCREW			4
67	WEP1273L6078	SCREW			3
68	WEP1273L6088	SCREW			4
69	WEP1273L6098	SCREW			6
70	WEP1273L6108	SCREW			4
71	WEP1273L6408	NUT			19
72	WEP1273L0258	SENSOR SPRING			1
73	WEP1273L6508	WASHER			1
74	WEP1273L6268	E SHAPED STOPPER			1
75	WEP1273L6518	WASHER			1
76	WEP1273L0158	GUIDE ROLLER SPRING			1
77	WEP1273L6528	WASHER			1
	WEP1273L4008	MASSAGE MECHANISM BLOCK			1
101	WEP1273L0088	REAR FRAME			1
102	WEP1273L0698	RAIL PIECE			2
103	WEP1273L0688	CORD WIRE			2
104	WEP1273L0098	SUB FRAME BLOCK			1
105	WEP1273L0528	SUB FRAME COVER RIGHT			1
106	WEP1273L0538	SUB FRAME COVER LEFT			1
107	WEP1273L0548	SIDE HINGE COVER			2
108	WEP1273K1558	OTTOMAN LEVER BS BLOCK BLACK			1
108	WEP1273T1558	OTTOMAN LEVER BS BLOCK BROWN			1
109	WEP1273L4108	OTTOMAN LIFT UNIT			1
110	WEP1273L4118	OTTOMAN LIFT UNIT			1
111	WEP1273L0558	REAR FEET COVER			1
112	WEP1273L0008	SEAT FRAME(FOR EP1273)			1
112	WEP1272L0008	SEAT FRAME(FOR EP1272)			1
113	WEP1273L0138	S-SHAPED SPRING			1
114	WEP1273L2068	POWER CORD			1
115	WEP1273L4458	CONTROLLER BLOCK			1
116	WEP1273L3908	CASTOR			2
117	WEP1273L3918	FRONT LEG			2
118	WEP1273L0588	OTTOMAN LEVER PLATE			2
119	WEP1273L0878	LEG LARGE AIR BAG RIGHT			1
120	WEP1273L0888	LEG LARGE AIR BAG LEFT			1
121	WEP1273L0898	LEG SMALL BACK AIR BAG RIGHT			1
122	WEP1273L0808	LEG SMALL MIDDLE AIR BAG RIGHT			1
123	WEP1273L0818	LEG SMALL MIDDLE AIR BAG LEFT			1
124	WEP1273L0828	LEG SMALL FRONT AIR BAG RIGHT			1
125	WEP1273L0838	LEG SMALL FRONT AIR BAG LEFT			1
126	WEP1273L0608	LEG SMALL FRONT AIR BAG LEFT			2
127	WEP1273L0848	LEG SMALL BACK AIR BAG LEFT			1
128	WEP1273K3168	OTTOMAN CLOTH BLACK(FOR EP1273)			1

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Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
128	WEP1272K3168	OTTOMAN CLOTH BLACK(FOR EP1272)			1
128	WEP1273T3168	OTTOMAN CLOTH BROWN(FOR EP1273)			1
128	WEP1272T3168	OTTOMAN CLOTH BROWN(EP1272)			1
129	WEP1273L3648	LEG UNDER URETHANE 2			2
130	WEP1273L0238	HEEL PLATE RIGHT			1
131	WEP1273L0248	HEEL PLATE LEFT			1
132	WEP1273L0568	OTTOMAN OUTSIDE COVER			1
133	WEP1273L1868	SIDE SLIDE			2
134	WEP1273L0048	OTTOMAN PIPE BLOCK			1
135	WEP1273L1898	OTTOMAN RACK			1
136	WEP1273L1808	CENTER GUIDE			1
137	WEP1273L0638	SLIDE STOPPER A			1
138	WEP1273L0148	SLIDE SPRING			2
139	WEP1273L1878	SLIDE BASE(FOR EP1273)			1
139	WEP1272L1878	SLIDE BASE(FOR EP1272)			1
140	WEP1273L0648	OTTOMAN HINGE FITTING RIGHT			1
141	WEP1273L0658	OTTOMAN HINGE FITTING LEFT			1
142	WEP1273L0958	HAND PROTECTION SHEET G			1
143	WEP1273L0578	OTTOMAN BOTTOM COVER			1
144	WEP1273L0968	TANK FIXING TAPE			1
145	WEP1273L2008	POWER SOURCE SWITCH BLOCKÅiFOR EP1273)			1
145	WEP1272L2008	POWER SOURCE SWITCH BLOCKÅiFOR EP1273)			1
146	WEP1273L0508	UNDER BOX COVER B			1
147	WEP1273L0518	UNDER BOX COVER A			1
148	WEP1273L0668	UNDER BOX COVER C			1
149	WEP1273L2058	CONNECTING CORD FOR ELECTROMAGNETIC VALVE			1
150	WEP1273L3568	UNDER BOX BOTTOM			1
151	WEP1273L0288	SURGE TANK			1
152	WEP1273L4488	PUMP UNIT			1
153	WEP1273L2138	MAIN PCB			1
154	WEP1273L2238	POWER SOURCE TRANSFORMER			1
155	WEP1273L3758	EDGE GUARD			1
156	WEP1273L3578	CORD FIXING PLATE			1
157	WEP1273L2248	UNDER BOX TRANSFORMER			1
158	WEP1273L4068	3WAY3ROW ELECTROMAGNETIC VALVE			1
159	WEP1273L4078	3WAYELECTROMAGNETIC VALVE			1
160	WEP1273L4088	2WAYELECTROMAGNETIC VALVE			1
161	WEP1273L0678	POWER SOURCE BOX COVER (ONLY FOR EP1273)			1
162	WEP1273L3128	OTTOMAN LEVER COVER			1
163	WEP1273L0708	SLIDE STOPPER B			1
164	WEP1273L6108	SCREW			14
165	WEP1273L6118	SCREW			36
166	WEP1273L6128	SCREW			2
167	WEP1273L6418	LEVERNUT			2
168	WEP1273L6318	LEVERNUT			4
169	WEP1273L6708	RESIN BUSHING 10			2
170	WEP1273L6138	SCREW			2
171	WEP1273L3668	PROTECTION PLATE RUBBER			1
172	WEP1273L0628	REAR COVER PLATE			2
173	WEP1273L6718	OTTOMAN LIFT PIN LONG			3
174	WEP1273L6728	RECLINING LIFT PIN LONG			1
175	WEP1273L6738	RESIN BUSHING 8			4
176	WEP1273L6748	RESIN BUSHING 8			5

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Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
177	WEP1273L6758	PINLONG			1
178	WEP1273L0568	áTSHAPED 2 ROW JOINT			2
179	WEP1273L6768	RESIN BUSHING 10			2
180	WEP1273L0718	HOSE 2-ROW A			1
181	WEP1273L0728	HOSE 2-ROW B			1
182	WEP1273L6158	SCREW			8
183	WEP1273L6168	SCREW			10
184	WEP1273L6778	SCREW			2
185	WEP1273L6538	WASHER			4
186	WEP1273L6428	CAP NUT			2
187	WEP1273L3588	HOSE CLIP			2
188	WEP1273L6178	SCREW			8
189	WEP1273L3458	PCB BUSHING C			3
190	WEP1273L3458	BOARD SUPPORT			5
191	WEP1273L6188	SCREW			4
192	WEP1273L0738	HOSE UNDER B			2
193	WEP1273L0748	CONNECTING HOSE			1
194	WEP1273L0758	HOSE UNDER C			1
195	WEP1273L3598	HOSE CLAMP			4
201	WEP1273K3648	SEAT BLACK(FOR EP1273)			1
201	WEP1272K3648	SEAT BLACK(FOR EP1272)			1
201	WEP1273T3658	SEAT BROWN(FOR EP1273)			1
201	WEP1272T3658	SEAT BROWN(FOR EP1272)			1
202	WEP1273K3618	HEADRESTBLACK(FOR EP1273)			1
202	WEP1272K3618	HEADRESTBLACK(FOR EP1272)			1
202	WEP1273T3618	HEADRESTBROWN(FOREP1273)			1
202	WEP1272T3618	HEADRESTBROWN(EP1272)			1
203	WEP1273K3638	BACK CUSHION BLACK(FOR EP1273)			1
203	WEP1272K3638	BACK CUSHION BLACK(FOR EP1272)			1
203	WEP1273T3638	BACK CUSHION BROWN(FOR EP1273)			1
203	WEP1272T3638	BACK CUSHION BROWN(FOR EP1272)			1
204	WEP1273K3148	MASSAGE WHEEL COVER BLACK(FOR EP1273)			1
204	WEP1272K3148	MASSAGE WHEEL COVER BLACK(FOR EP1272)			1
204	WEP1273T3148	MASSAGE WHEEL COVER BROWN(FOR EP1273)			1
204	WEP1272T3148	MASSAGE WHEEL COVER BROWN(FOR EP1272)			1
205	WEP1273L0858	CENTER HOOK			1
206	WEP1273K3178	REAR COVER BLACK(FOR EP1273)			1
206	WEP1272L3178	REAR COVER BLACK(FOR EP1272)			1
206	WEP1273T3178	REAR COVER BROWN(FOP EP1273)			1
207	WEP1273K3708	ARMREST RIGHT BLACK(FOREP1273)			1
207	WEP1272K3708	ARMREST RIGHT BLACK(FOR EP1272)			1
207	WEP1273T3708	ARMREST RIGHT BROWN(FOR EP1273)			1
207	WEP1272T3708	ARMREST RIGHT BROWN(FOR EP1272)			1
208	WEP1273K3718	ARMREST LEFT BLACK(FOR EP1273)			1
208	WEP1272K3718	ARMREST LEFT BLACK(FOR EP1272)			1
208	WEP1273T3718	ARMREST LEFT BROWN(FOR EP1273)			1
208	WEP1272T3718	ARMREST LEFT BROWN(FOR EP1272)			1
209	WEP1273L3198	FRONT COVER			1
210	WEP1273L3108	FRONT LEG COVER RIGHT			1
211	WEP1273L3118	FRONT LEG COVER LEFT			1
212	WEP1273L3138	SLIDE COVER A			1
213	WEP1273L3148	SLIDE COVER B			1
214	WEP1273L3158	SLIDE COVER HINGE			1
215	WEP1272L3168	SEAT SIDE COVER RIGHT(FOR EP1272)			1

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Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
216	WEP1272L3178	SEAT SIDE COVER RIGHT(FOR EP1272)			1
217	WEP1272L3188	UNDER COVER RIGHT(FOR EP1272)			1
218	WEP1272L3198	UNDER COVER LEFT(FOR EP1272)			1
219	WEP1272L0348	PUSH TURN RIVET 055F			2
220	WEP1272L0358	PUSH TURN RIVET 35W2			16
221	WEP1272L0378	BRUSHCLIP5347			4
222	WEP1272L6198	SCREW			2
223	WEP1272L6208	SCREW			2
	WEP1273K8008	OUTER CARTON(FOR EP1273K)			
	WEP1273T8008	OUTER CARTON(FOR EP1273T)			
	WEP1272K8008	OUTER CARTON(FOR EP1272K)			
	WEP1272T8008	OUTER CARTON(FOR EP1272T)			
	WEP1273L8108	INSTRUCTION MANUAL(FOR EP1273)			
	WEP1272L8108	INSTRUCTION MANUAL(FOR EP1272)			

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